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**the
american
university**



bulletin

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September

1969

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washington, d.c.

Degrees Available

The College of Arts and Sciences

Associate of Arts,* Bachelor of Arts, Master of Arts

American Studies
Anthropology
Area Studies
Art
Communication
Economics
Elementary Education
English
French
German
Health, Physical Education and Recreation
History
Mathematics
Music
Philosophy
Religion
Political Science
Psychology
Religion
Russian
Sociology
Spanish
Speech Arts
Statistics

Bachelor of Science

Biology
Chemistry

Distributed Sciences
Medical Technology
Physics

Master of Science

Biology
Chemistry
Physics

Master of Science in Science Teaching

Master of Fine Arts

Master of Education

Master of Arts

Doctor of Education

Doctor of Philosophy

Anthropology
Chemistry
Economics
Education
History
Mathematics
Philosophy
Physics
Psychology, Experimental and Clinical
Sociology
Statistics

School of Business Administration

Associate in Business Administration, Bachelor of Science in Business Administration, Master of Business Administration

Accounting
Business-Government Relations
Business Law
Business Management
Church Management
Financial Management, Commercial Banking, and Investments
Industrial Relations and Personnel Management
International Business
Managerial Analysis
Marketing
Transportation
Production Management
Real Estate
Technology of Management

Master of Science in Real Estate and Urban Development Planning

Doctor of Philosophy

Business Administration
Business Administration: Technology of Management

* Associate of Arts in General Studies

The American University Bulletin: Catalog Issue



September 1969

The American University Bulletin is prepared and published by The American University, Office of University Publications, Massachusetts and Nebraska Avenues, Northwest, Washington, D.C. 20016, monthly except July. Second class postage paid at Washington, D.C. 20016.

Volume 45, Number 8, September 1969.



Copies may be obtained by calling or writing the Director of Admissions.



1969-1970 Academic Calendar

September 8	Fall Semester classes begin
November 27-30	Thanksgiving holidays
December 23	End of Fall Semester
January 5	Intersession
February 2	Spring Semester classes begin
February 23	Washington's Birthday holiday
February 24	University's Founder's Day
March 25-31	Spring vacation
May 26	Spring Semester ends
May 31	Fifty-sixth annual Commencement
June 17	Summer Sessions classes begin
September 2	Summer Sessions classes end

1969

JANUARY	FEBRUARY	MARCH
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Correspondence Directory

Admission Director, Office of Admissions, Asbury Building

Housing Resident Halls Business Management Office, McDowell Hall

Scholarships and Loans Director, Office of Student Aid, Mary Graydon Center

Part-time Employment Director, Placement Office, Mary Graydon Center

Counseling Director, Counseling Center, Mary Graydon Center

Program Information Office of the Dean of the Respective College or School

Records and Transcripts Registrar, Asbury Building

International Student Adviser International Student Office, Mary Graydon Center

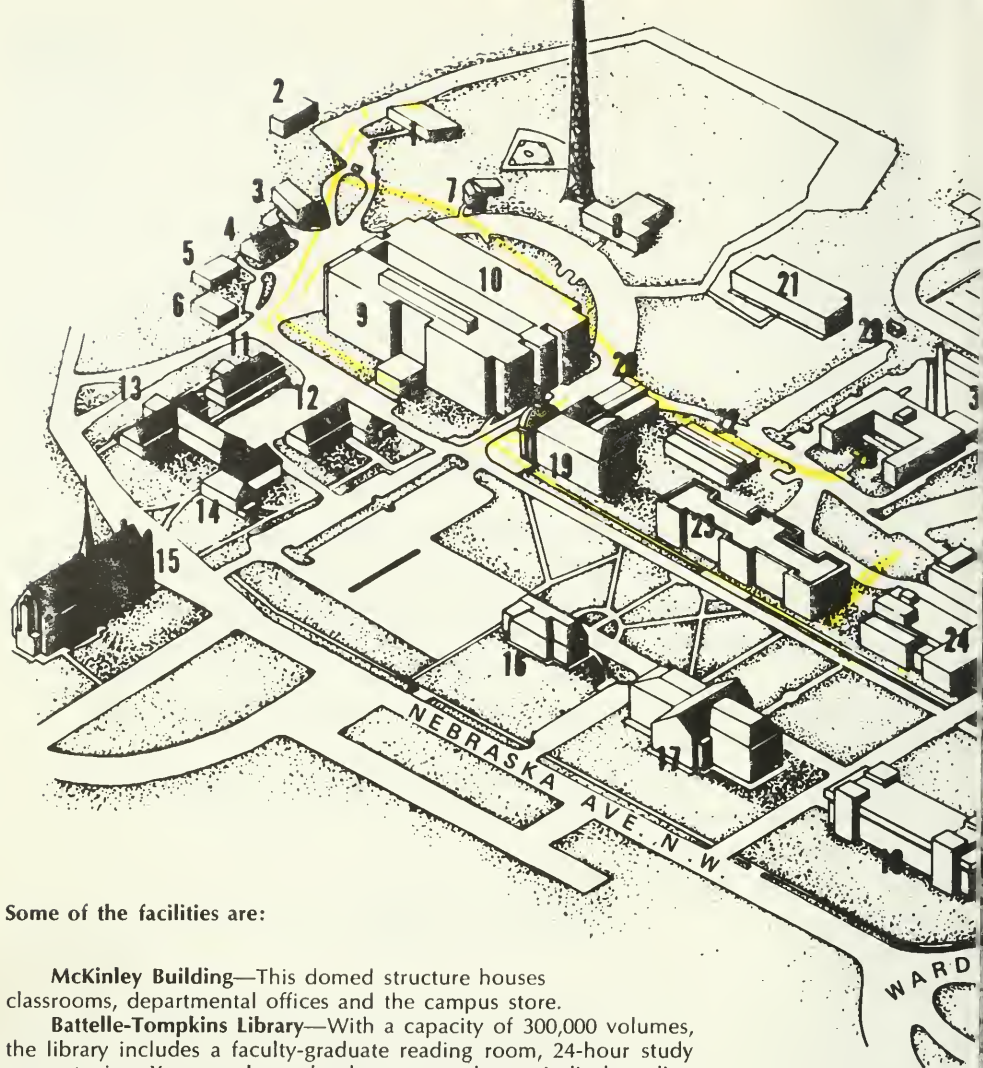
Financial Transactions Office of Student Accounts, Leonard Center

*To complete above
addresses, write:*

The American University,
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016

For additional information, phone, write or visit:

Office of the Director of Admissions
THE AMERICAN UNIVERSITY
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016 Telephone: (202) 244-6800



Some of the facilities are:

McKinley Building—This domed structure houses classrooms, departmental offices and the campus store.

Battelle-Tompkins Library—With a capacity of 300,000 volumes, the library includes a faculty-graduate reading room, 24-hour study room, typing, Xerox and rare book rooms and a periodical reading room.

Hurst Hall—The oldest building on campus is used for classrooms and science laboratories. Glover Room, the scene of many campus activities, is located here.

Watkins Art Building—The first wing of the proposed Creative Arts Center houses studios, lecture rooms and the Watkins Art Gallery.

Communication Building—Home of the campus radio station also has studios for classes in broadcasting and television.

Washington College of Law—Specifically designed for law study. John Sherman Myers Hall on campus was dedicated by Chief Justice Earl Warren.

Mary Graydon Center—The social hub of the campus houses student offices, lounges, recreational facilities and the cafeteria and snack bar.

Asbury Administration Building—Admissions office, other administrative offices, and various faculties are located here.

Letts-Anderson Hall—Women's Dormitory.

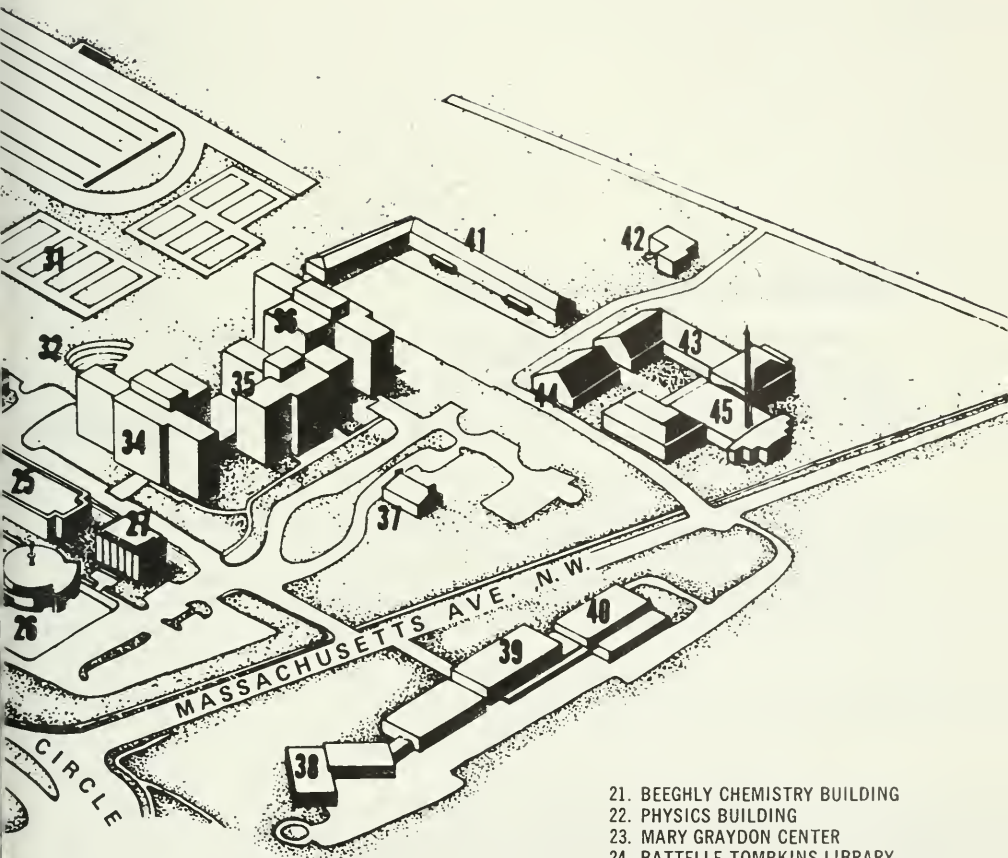
Hughes-McDowell-Leonard Halls—Men's Dormitory.

Leonard Center—Men's Gymnasium, bowling lanes, swimming pool, billiard room, and mail room are located here.

Clendenen—Home of the campus theatre and women's physical education department.

Ward Circle Building—New classroom building for School of Government and Public Administration including faculty and administrative offices.

THE AMERICAN UNIVERSITY



LEGEND

1. WATKINS ART BUILDING
2. KREEGER MUSIC BUILDING
3. HAMILTON BUILDING
4. $\Phi\Sigma\K$
5. $\Lambda\Sigma\Phi$
6. $\Phi\Xi\Pi$
7. ATO
8. COMMUNICATIONS BUILDING
9. LETTS HALL
10. ANDERSON HALL
11. McCABE HALL
12. CLARK HALL
13. GRAY HALL
14. ROPER HALL
15. METROPOLITAN MEMORIAL CHURCH
16. SCHOOL OF INTERNATIONAL SERVICE
17. HURST HALL
18. WARD CIRCLE CLASSROOM BUILDING
19. MCKINLEY BUILDING
20. EARTH SCIENCE BUILDING
21. BEEGLY CHEMISTRY BUILDING
22. PHYSICS BUILDING
23. MARY GRAYDON CENTER
24. BATTELLE-TOMPKINS LIBRARY
25. JOHN SHERMAN MYERS LAW BUILDING
HUTCHINS BUILDING (Rear Entrance)
26. KAY SPIRITUAL LIFE CENTER
27. LECTURE-CLASSROOM BUILDING
28. GREEN HOUSE
29. ASBURY ADMINISTRATION BUILDING
30. OSBORN BUILDING
31. TENNIS COURTS
32. WOODS BROWN OUTDOOR THEATRE
33. CLENDENEN GYMNASIUM
34. HUGHES HALL
35. McDOWELL HALL
36. LEONARD HALL
37. PRESIDENT'S ADMINISTRATION BUILDING
38. LEONARD ANNEX
39. LEONARD GYMNASIUM
40. LEONARD SWIMMING POOL
41. DORMITORY—SEMINARY
42. PRESIDENT'S HOUSE—SEMINARY
43. CLASSROOM BUILDING—SEMINARY
44. LIBRARY—SEMINARY
45. ADMINISTRATION BUILDING—SEMINARY

Regulations Subject to Change

Because of the nature of the educational process, the admission requirements, courses and degrees available, degree and graduation requirements, charges, costs and other information contained in this *Bulletin* are subject to change without notice by the University and are to be considered as informational only and not binding in any way on the University.

Each step of the educational process from admission through graduation requires approval by appropriate University officials. The University reserves the right to change any requirement, to deny admission, and after a student is admitted to require a student to withdraw or to refuse to grant a degree if a student does not satisfy the University in its sole judgment that he has satisfactorily met its degree requirements.

Introduction

THE AMERICAN UNIVERSITY is proud of 76 years of growth and development. It looks forward to a new era in higher education, seeking to respond to the needs of the last third of the twentieth century as it anticipates the needs of the twenty-first.

As a private, urban university, it enjoys the freedom to experiment while it recognizes an obligation to lead in the search for education that is both firmly based on the past and relevant to the present.

The American University offers its students an added dimension because it is located in Washington, D.C., the seat of national government, the focus of world attention, the center where public and private interests meet, the capital city in which are made the decisions that affect the nation and the world.

History

The American University was founded by Methodist Bishop John Fletcher Hurst and chartered by Congress in 1893. Bishop Hurst chose the nation's capital as the setting for a new Protestant institution devoted specifically to graduate study and personally selected the 66-acre tract in northwest Washington. The University was dedicated officially in 1914 and in 1916 the first degrees were awarded.

In 1925 the need for undergraduate liberal arts education was recognized with the establishment of the College of Liberal Arts, now the College of Arts and Sciences. Other schools added to the University, in chronological order, are: Washington College of Law, 1949; School of Business Administration, 1955; School of Government and Public Administration, 1957; School of International Service, 1958; College of Continuing Education, 1964; and Lucy Webb Hayes School of Nursing, 1965.

The University has retained its close relationship to The Methodist Church and is known today as a "national Methodist university." In 1956 a portion of the University campus was deeded to Wesley Theological Seminary. The addition of a School of Nursing was the outgrowth of the bond between the University and nearby Sibley Memorial Hospital, another Methodist-related institution. The National Methodist Church, Metropolitan Memorial, is located across Nebraska Avenue from the campus.

Accreditation

The American University is accredited by the Middle States Association of Colleges and Secondary Schools and the University Senate of The Methodist Church. It is a member of the Association of American Colleges, the Association of Urban Universities, the Association of University Evening Colleges, the National Intercollegiate Athletic Association, and is

approved by the American Association of University Women. A charter member of the Council of Graduate Schools in the United States, the University is also a member of the Midwest Conference on Graduate Study and Research.

The School of Business Administration is a member of the Middle Atlantic Association of Colleges of Business Administration.

The Washington College of Law is a member of the Association of American Law Schools and is approved by the American Bar Association.

The Department of Education in the College of Arts and Sciences is a member of the American Association of Colleges for Teacher Education and is also accredited by the National Council for Accreditation of Teacher Education in both elementary and secondary areas.

The Department of Music in the College of Arts and Sciences is a full member of the National Association of Schools of Music.

The Department of Chemistry, College of Arts and Sciences, is accredited by The American Chemical Society.

Wesley Theological Seminary is accredited by the American Association of Theological Schools and the University Senate of The Methodist Church.

Physical Facilities

Location

The campus is located in Northwest Washington at Ward Circle, just beyond the up-town center of embassies and chanceries. It is situated in the center of the world's largest collection of national, international, and local treasures of the human mind, scientific, humanistic and philosophic. It is the bridge between downtown and the suburb.

The Library

Washington, D.C., may be considered the bibliographic research center of the world. Beginning with the dominant Library of Congress, the two-hundred-fifty-odd other libraries in this city create a rich fountain of resources for academic research and writing. While modest by these other giants, the library at American University is being enlarged at a fast pace; its collection has doubled in the last three years to reach 300,000 volumes and its annual growth rate is 30,000 items. The higher caliber of the collection is all the more remarkable because of its variety: The Peace Society Library, excellent for its pre- and post-World War I materials, including those of the League of Nations; the Artemas Martin collection of rare materials on mathematics; the Friedrich (economics) and Franklin (pre- and post-Hitler Germany) collections; a large collection of Asian government publications and Asian periodicals on microfilm; and finally, a small but fine group of European diplomatic papers. The University Library's main catalog includes the holdings of the Wesley Theological Seminary Library and the Washington College of Law Library.

In addition, the Consortium (described further on) Libraries are used by participating students.

Applied Arts

The Watkins Art Building houses studios, lecture rooms and graphic arts workshops, and gallery. Accompanying these are the dressing rooms, clean-up rooms, and storage rooms.

The Kreeger Music Building contains teaching studios, classrooms, practice rooms, faculty offices and a recital hall. Features of the building are its electronic organ practice rooms, organ practice and teaching rooms, score and robe library rooms, workshops, and all of the necessary technical components for learning the art and craft of music.

The theatre features costume storage rooms, dressing rooms, movable equipment elevator, and workshop for sets. In addition, there is the outdoor Woods-Brown Amphitheatre used for special events such as guest speakers, convocations, entertainment, shows, and campus meetings.

Communication Arts

The University has an entire building devoted to the broadcasting curriculum which includes the campus radio stations WAMU-AM and WAMU-FM. The AM station is limited to

the campus, but the FM station reaches a large audience in and beyond the Washington Metropolitan area. Television programs are often taped in the TV studio for transmission on Washington channels. The building houses classrooms and tape libraries for its broadcasting functions.

In addition, the University has a complete photography laboratory which is used for instruction and extra-curricular events, from developing, printing and reproduction to publication. There are also the student newspaper and other student publications.

Mary Graydon Center

The recently remodeled hub of the campus, this building houses food services; it also houses lounges, reading rooms, private dining rooms, and special assembly rooms for the use of the campus community. In addition, it is the home of the student government and student services offices.

Leonard Center

Most of the University's indoor recreation facilities, available to full-time students, are located here: billiards, bowling, sauna baths, pool, gymnastics and other indoor sports. Outdoor sports include soccer field, baseball field, track and tennis courts.

Extracurricular Facilities

Throughout the University space is provided for students to lounge, visit, or study. There are suites available for students for their extra-curricular office work, for fraternities and sororities, for club meetings, for guest lectures and events, for entertainment brought in for student events, for religious convocations, for sporting meets, for public and private student and faculty functions, and for all the varieties of student life that are corporate with the traditional collegiate atmosphere.

Classrooms

The University provides ample classroom space for its students, featuring two new structures recently built for that purpose. There are 85 general-purpose classrooms and 30 laboratory rooms; in addition there are dozens of special rooms designed individually for music, art, dance, sports, theatre, speech, and others, including honors research, practice studios, photographic workshops, broadcasting, television and radio, and scientific research.

Resource Rooms

Space is provided for students to lounge, visit, or study in the dormitories. Suites are available for students to write on student publications, for fraternities and sororities, for club meetings, for student association gatherings, for public and private student functions, for religious convocations, for sporting meets, and for all the varieties of student life traditional to a college education other than academic

Dining Service

A variety of meals are available to students depending upon tastes and budgets. There is a cafeteria for those desiring a food service contract on a semester basis; a snack bar for odd-hour eating; numerous vending machines distributed around campus and a carry-out shop featuring pizza for late-evening snacks. Finally, there is a supper club room on campus for special and important events, as well as for an evening of leisurely relaxation.

Alumni Association

The alumni, in excess of 15,000, represent The American University in all 50 United States and in many foreign countries.

Through the annual Alumni Fund, the alumni support scholarships for undergraduate and graduate students and contribute to the operating expenses of the University.

The area chapters in major cities provide a channel for student recruiting, job placement assistance, a friendly welcome to alumni new to the city, continuing education with visiting faculty, and fellowship.

Through elected officers, the National Board of Governors and committees, the association makes available to the University and the students the expertise, experience and influence of alumni established in their communities and professions.

The Students

Faculty and Enrollment

The student body of the University normally is composed of students from all 50 states and approximately 80 foreign countries. In the 1968-69 academic year, full-time undergraduates numbered 4,465. A total of 2,937 enrolled for full-time and part-time graduate study and more than 9,161 students attended on a part-time basis either on the campus or at various metropolitan Washington and off-campus locations.

Schools and Colleges (Date of Founding):

College of Arts and Sciences (1925)

Washington College of Law (1949)

School of Business Administration (1955)

School of Government and Public Administration (1957)

School of International Service (1958)

College of Continuing Education (1965)

Lucy Webb Hayes School of Nursing (1965)

Faculty (1968-69)

Full-time—340

Part-time—397

Residence Facilities

Women (Anderson Hall, Hughes Hall, Letts Hall)—1,804

Men (Leonard Hall, McDowell Hall)—943

Washington Semester Program—101 participating institutions

This is a program in which participating institutions throughout the nation cooperate with the University, enabling honor students from other schools to come to AU for one semester to study government in action through seminars, independent research, and field trips to government agencies.

Enrollment (1968-69)

Full-time undergraduate and graduate—5,433

Part-time degree and non-degree—8,467

Degrees Conferred—Class of 1969

School or College	Associate	Bachelors	Masters	Ph.D	Ed.D.	J.D.	Total
College of Arts and Sciences	5	645	189	22	5	—	866
School of Business Administration	5	152	153	4	—	—	314
School of Gov. and Public Admin.	—	222	150	5	—	—	377
School of International Service	—	99	106	15	—	—	220
College of Continuing Education	31	24	10	—	—	—	65
Washington College of Law	—	—	—	—	—	147	147
Nursing	—	11	—	—	—	—	11
Total	41	1,153	608	46	5	147	2,000

Admission for Undergraduates

General

Application for admission to undergraduate degree programs may be made for a given fall or spring semester. Completed freshman applications and all required supporting materials and documents must be on file in the Undergraduate Admissions Office by the following dates:

For Fall

March 1

For Spring

December 1

In summer sessions, undergraduate degree applicants may take courses as non-degree students. Such coursework earned may be transferred to degree status when and if degree status is granted. If degree status is not granted, the student may not take courses in any category at the University. Applicants who have completed less than one year of full-time undergraduate study or its equivalent of part-time study in another regionally-accredited college or university must follow the directions for freshman applicants, below.

In any category the applicant is responsible for requesting official transcripts and test scores from other institutions and having them sent directly to the Office of Undergraduate Admissions by the appropriate official testing agency.

Freshman Eligibility

A graduate of an approved secondary school who has completed 16 acceptable units with a minimum grade average of "C" or the equivalent, 15 of which are academic or college preparatory in nature and include 4 units in English and 2 units in mathematics, who ranked in the upper half of the graduating class and who has achieved acceptable scores on the Scholastic Aptitude Tests of the College Entrance Examination Board will be considered for freshman standing. Applicants to the College of Arts and Sciences must also have completed two years of a foreign language.

How to Apply

A freshman applicant is required to present an admission control card (provided by the Office of Admissions) and a non-refundable application fee of \$15 along with the completed application for admission which may be obtained by writing or calling the Office of Admissions. In addition, an official secondary school transcript and the following College Entrance Examination Board test results are to be requested by the applicant from the appropriate institution for forwarding to The American University Admissions Office no later than January for a subsequent fall admission:

1. *The Scholastic Aptitude Test*
2. *The English Achievement Test*
3. *The Mathematics Achievement Test*, Level I or Level II

4. Candidates for admission to arts, sciences, social sciences or international service are also required to take the appropriate *Foreign Language Achievement Test* no later than January.

Note that students who are participating in English, mathematics, or foreign language courses under the Advanced Placement Program of the College Entrance Examination Board and who plan to submit their examination results for credit and/or placement consideration need not take the Achievement Tests in the areas covered by this program. Last, a teacher's recommendation form, supplied by The American University, together with an envelope addressed to the Office of Admissions, should be presented to a teacher of the applicant's choice for completion and return to The American University, Office of Admissions.

International Service Freshman Applicants

In addition to standards and procedures pertaining to regular undergraduate admission, candidates for admission to the School of International Service must present evidence of outstanding personal and academic qualifications. Eligibility for freshman admission consideration requires (a) at least a "B" average in secondary school, (b) a rank in the top quarter of the secondary school graduating class, and (c) College Entrance Examination Board Scholastic Aptitude Test scores totaling at least 1150. Out of the entire list of applicants to the School of International Service approximately 100 of those eligible are selected to enter the freshman class. Thus, in addition to the admission criteria already mentioned, other requirements include academic preparation, character and leadership qualities, and personal interests. The School of International Service also welcomes candidates for "early admission," a condition described below.

"Early Admission"

The American University offers a unique opportunity for early admission to freshman applicants whose superior ability, academic achievement, and general maturity are such that after three years of secondary school they are able to perform well at the college level. Such applicants, if admitted, will receive credit for coursework and are expected to abide by the general standards and procedures which pertain to all undergraduate applicants. This process is sometimes called "admission without diploma." The American University's Director of Admissions will be pleased to send information to secondary school principals, counselors or individual students inquiring about early admission. Each individual is considered on his own merits. However, major factors important to evaluation are:

1. The secondary school record, with special reference to grades achieved and the pattern of courses taken;
2. Performance on the College Entrance Examination Board Tests;
3. The recommendation of the secondary school principal and counselors;
4. An interview with a screening committee. Occasionally, additional tests of ability, evidence of maturity, or interest may be requested.

Notice of Admission

On the basis of the required standards and academic record as stipulated in the foregoing, well-qualified applicants will be sent notices of acceptance upon completion of applications received during December, January and February. This preliminary notice of acceptance is intended to advise applicants that their admission has been approved contingent upon satisfactory completion of the senior year's program. Instructions for reply will be sent on or about April 1.

Applicants for whom all required admission material and supporting documents are on file by March 1 will receive one of the following on or about April 1:

1. *Notice of Acceptance* and the corresponding instructions for reply; or
2. *Alternate Notice* indicating that they are on the waiting list for further consideration if space permits; or
3. *Notice of Denial*.

Deposit

Applicants who are admitted and who plan to attend The American University will be required to pay a non-refundable tuition deposit of \$100. If University-supervised housing accommodations are desired, an additional \$100 deposit must be paid. Details concerning the deposits are furnished with the instructions for reply. See also the section under *Housing*.

Admission for Transfer Students

	<i>For Fall</i>	<i>For Spring</i>
Transfer Application Deadlines	June 1	December 1

Eligibility

Only candidates having more than 10 courses (the equivalent of one full year or 30 semester hours) may be considered as applicants for transfer admission. Others having less must apply following the directions stated in the section under *Freshmen*, preceding. Undergraduate students, applying for transfer to The American University, may normally expect to receive credit for courses taken at regionally-accredited collegiate institutions, if the courses were completed with grades of A, B, C, or the equivalent of P on a pass-fail system. (P is equated with the grade C.) However, courses accepted for transfer will not be considered toward a grade-point average to be maintained at The American University but will count toward the total number of courses required, with the following conditions:

(1) No more than 60 credit hours of course work or 20 equivalent courses completed in a college transfer program at a two-year college may be accepted at The American University.

(2) Credits for courses which are taken in certain specified institutions which are not regionally-accredited, and which are completed with a grade of "B" or better, or its equivalent, may be accepted as transfer credit to The American University in individual cases for a total of no more than 60 credit hours (or 20 courses).

(3) A maximum of 30 credit hours, or 10 equivalent courses, may be accepted on transfer for a combination of relevant work completed satisfactorily in Armed Services School courses recommended for baccalaureate credit by the American Council on Education, or for relevant college-level correspondence or extension courses completed through the United States Armed Forces Institute, or through a regionally-accredited institution which accepts the credits for its own degrees.

Transfer to the School of International Service

Graduates of regionally-accredited two-year and four-year colleges and universities, and students in other majors of The American University who have completed the freshman year are eligible for application for admission to transfer to The School of International Service. Such applicants must have maintained a "B" average for the academic year preceding anticipated transfer or possess a total cumulative "B" average. Curriculum deficiencies may require additional courses for acceptance into the School.

How to Apply

Transfer applicants must submit the appropriate forms provided by the Office of Admissions and a non-refundable application fee of \$15. In addition, transfer applicants must request that ALL previous colleges and secondary schools send transcripts to the Office of Admissions at The American University. *All institutions attended must be reported whether or not credit was earned or is desired by the applicant.*

If College Entrance Examination Board tests have been taken by the candidate within the past five years, he must request that these scores be sent directly to the Office of Admissions at The American University.

Notification of Admission

As soon as possible after receipt of all required forms and credentials, The American University will notify the applicant for the spring semester of his admission status. Candidates for the fall semester are cautioned, however, to expect no notification before May 15 because of the other administrative demands of the freshman admission program.

Deposit

Transfer applicants who are admitted to The American University and who plan to attend are required to pay a non-refundable tuition deposit of \$100. If University-supervised housing accommodations are desired and available, an additional housing deposit of \$100 must also be paid. Details concerning the deposits are furnished with the instructions for reply. See the separate section on *Housing* of this Catalog.

Admission for Part-Time Undergraduate Degree Students

Eligibility

The applicant considering application for part-time study in a degree program is cautioned that he may be unable to complete the necessary coursework for the degree in the evening classes only. Before applying, the applicant should consult the department chairman for his proposed major to ascertain if the required courses will be available to him.

Whether applying as a freshman or transfer student, the part-time degree applicant is required to meet the same standards for admission and provide the same credentials as full-time applicants.

How to Apply

The applicant for part-time degree undergraduate study who plans to register for ten or fewer semester hours of credit per semester should follow the instructions under either *Admission for Freshmen* or *Admission for Transfer Students*, whichever is appropriate.

The following conditions pertaining to College Board tests apply:

1. If the applicant has taken College Board tests within the past five years, he is requested to contact the College Entrance Examination Board, Box 592, Princeton, New Jersey, or Box 1025, Berkeley, California, to request that official scores be sent directly to The American University Office of Admissions.
2. If the applicant completed secondary school within the past two years and did NOT take College Board tests, he must arrange to do so. Information on how to apply may be obtained from the College Entrance Examination Board address given in No. 1 above.
3. If the applicant completed secondary school MORE THAN two years ago and did NOT take College Board tests, he may be asked to take an alternate examination at the direction of the Office of Admissions of The American University.

Campus Visits and Interviews

Prospective students are invited to visit the University but are not required to do so as a part of the admission requirements. The student is asked to make an appointment with the Office of Admissions, three weeks in advance if by mail, two weeks if by phone.

Prospective freshmen may participate in group conferences conducted by an Admission Counselor, who will review admission policy and procedure, and answer questions about the University. Applicants should be prepared to present a brief resume of their academic qualifications, i.e., academic average, College Board scores, and rank in class.

Campus tours are available for visitors after the conferences.

Students attending another college or university who are interested in transferring to The American University may make appointments in advance for individual interviews with Admission Counselors. A transfer applicant should have an official transcript forwarded to the Admissions Office prior to his visit or bring a personal copy for use in counseling.

The Office of Admissions does not arrange classroom visits for prospective students. However, a visitor may attend classes with a friend enrolled at the University if permission of the professor has been granted in advance.

The University does not have facilities for the accommodation of overnight visitors.

Re-Admission for Undergraduates

An undergraduate student whose study at the University is interrupted for any reason for a period of one semester or more (excluding the summer sessions) must submit a formal application for re-admission to the Office of Admissions at least two months in advance of the beginning of the semester or summer session in which courses are desired. If such re-admission is approved, the student is subject to the academic requirements and regulations in effect at the time of his re-admission.

Graduate Admission

General

The minimum requirements for consideration to admission to graduate study at The American University are as follows:

- 1) possession of a bachelor's degree earned at a regionally-accredited college or university
- 2) a maintenance of 1.5 cumulative grade point average, based on a three point system, in the undergraduate program.

In seeking admission to graduate master's or doctor's degrees the student is expected to have maintained a cumulative grade point of 2.0 in each institution at which graduate work has been attempted. He does not, however, have to list his grade point average if the following stipulations are met:

- 1) a 2.3 cumulative grade point average in a master's degree program completed at an accredited institution, or
- 2) a 2.5 cumulative grade point average in 12 or more credit hours of a master's degree program still in progress at such an institution at the time of application evaluation.

Individual departments may require satisfaction of other criteria or requirements in addition to, not in lieu of, the University's minimum requirements. See these degree programs for these special requirements.

Applicants are requested to have applications and official transcripts sent directly from all colleges previously attended to the Admissions Office by June 1 for the fall semester and December 1 for the spring semester.

Provisional Standing

Each school or department within the University may admit to provisional standing a limited number of students who do not fully meet the minimum standards for admission. Previous study in graduate courses may be utilized in determining an applicant's eligibility for provisional admittance. By the end of one full semester of full-time study or by the first 12 hours of part-time study the student will be evaluated by his college, school or department. Continuation in the graduate program will be permitted upon a professoriate's favorable appraisal of the student's performance.

The provisional admission status of a graduate student who does *not* give satisfactory evidence of his capabilities will be cancelled.

Candidates for graduate degrees currently enrolled will be subject to those academic regulations in force at the time of their admission.

Clearance

A student must clear his admission status before registering for a course. Students who have not received notification of status should inquire directly at the Office of Graduate Admissions before attempting registration. A provisional student will be designated as such at the time he is registered and admitted.

Transfer Credit

Credit may be considered for transfer at the time of admission, provided the admission is not provisional, or at advancement to candidacy, or other specific time established by the teaching unit.

Summer Sessions

Applicants for summer sessions, who do not plan to pursue a degree at The American University, should consult the section in this *Catalog* entitled "Summer Sessions" for separate application instructions.

International Student Admissions

Foreign students admitted as degree or non-degree students are required to send official transcripts directly from secondary schools and/or colleges, to the Office of Graduate Admissions. Proficiency in the Test of English as a Foreign Language is also required. The University may also require additional tests to determine such proficiency.

A non-immigrant student status ("F-1"), as outlined by the United States Department of Justice, requires the student to pursue a full course of study each semester during each period of enrollment. Students who fail to observe this regulation will not receive a "Certificate of Eligibility" (Form I-20) or any other letter of certification.

Students in the Exchange Visitor Visa (J-1) category requesting transfer to The American University's Private Exchange Visitor Program from another program number must obtain approval from the Foreign Student Adviser before admission to the University becomes valid.

Graduate Re-Admission

Continuation in the degree program may be granted once for a period of three years in the light of the requirements of the particular degree in effect at the time of re-admission, and may involve the taking of additional courses and/or other work in order for the candidate to remain "current" in his discipline. When a student is re-admitted under these circumstances, the length of time he will be allowed to complete his degree requirements and any additional courses, examination, or other requirements which are deemed necessary by the teaching unit, will be specified at the time of re-admission.

Any degree calling for additional prerequisite courses has the Statute of Limitations (page 32) extended in the proportion that the prerequisite requirements bear to the graduate credit requirements.

Intercession

During the month of January students have the opportunity to take independent study, research and reading courses outside of the normal classroom situation. Extra academic degree credit, in addition to the chance to pursue intellectual topics of interest to the student, are some of the benefits of this program.

Further details are available from offices of the dean or department chairman.

GRADUATE ADMISSIONS REQUIREMENTS OTHER THAN THE UNIVERSITY REQUIREMENTS

	Letters of Recommendation		Test Scores		
	Ph.D.	M.A.	Graduate Record Exam Aptitude	Advance Graduate Record Exam Aptitude	Others
Anthropology	✓	✓			
Economics	✓				
Education	✓	✓	✓ or		Miller Analogy Test
Fine and Applied Arts		✓			
History	✓	✓	✓	✓	
Natural Sciences and Math	✓				
Philosophy	✓	✓	✓	✓	
Psychology	✓	✓	✓	✓	
Sociology	✓	✓	✓	✓	
Business Administration	✓				Admission Test for Graduate Study and Business
Government and Public Administration	✓	✓	✓		
International Service	✓	✓	✓ M.A.		
Foreign Students					Test of English as Foreign Language

Admission for Non-Degree Students

General

A student not wishing to enroll in a course of study leading to a degree at The American University may apply for admission to courses of his choice for which he has the necessary background and special qualifications. Through its non-degree program, the College of Continuing Education meets the needs of those individuals who do not desire to pursue a formal degree. The non-degree program enables students to register for courses which may provide either personal enrichment or professional preparation. Such courses may be audited or taken for credit. Not all courses are open to non-degree students, however, nor are non-degree students permitted to take courses under the Consortium of Universities arrangement.

A non-degree student is not eligible to enroll in 600- or 700-level courses unless he secures in advance the written permission of the Dean or Department Chairman of the school or college who has jurisdiction over the course.

Enrollment

A non-degree student is limited to an enrollment of no more than three courses (nine credit hours) or to no more than two courses (six credit hours) if such courses are 500- and above level in any spring or fall semester. A non-degree student may petition to the Dean of the College of Continuing Education to take four courses (12 credit hours) a semester. If the petition is granted due to special circumstances, such a student will be considered as a full-time non-degree student and must pay the tuition and other fees charged to all full-time undergraduate degree students.

All non-degree students further are held to the same level of academic standards as degree students and are subject to dismissal at the end of any session in which their cumulative grade point average falls below "C" (1.00 on a 3-point scale).

Eligibility

Application for admission is not required in advance but is a part of the registration procedure. However, the following requirements apply:

(1) Applicants must be over 21 years of age or have earned a Bachelor's degree from a regionally-accredited college or university;

(2) Applicants who have attended another college or university within the past calendar year must be in good academic standing at that institution and entitled to honorable dismissal. However, students who have attended another college or university during the past academic year and who have been dismissed or suspended from that institution are not eligible to enter the College of Continuing Education. Also, students who may have been dismissed from another university or college must make an appointment with the Office of the Assistant Dean, College of Continuing Education, for his determination of the candidate's eligibility for admission to The American University.

(3) Degree students who have been dismissed from The American University or students who have been denied admission to a degree program at this University are not eligible to enter the College of Continuing Education nor for a non-degree program.

Transfer

A student enrolled in good standing in another college or university who wishes to earn credit to be transferred to his home institution may be admitted to The American University as a non-degree student. However, such students must first consult the Office of the Assistant Dean, College of Continuing Education, for preliminary determination of eligibility. Students wishing to transfer from a non-degree status at The American University to a degree status at The American University should make application through the Office of Admissions. Those seeking to pursue an undergraduate degree may apply for admission to the fall semester only. Application should be made after the student has completed four courses (12 semester hours) and before he has completed ten courses (30 semester hours). Application for admission must be presented at least two months before the commencement of the fall semester (July 1).

A maximum of thirty hours or ten courses of non-degree status may be transferred to an undergraduate degree program. Twelve hours is the graduate limit.

Admission for International Students

Students who are not American citizens, whether applying for admission as degree or as non-degree students, must have official transcripts sent directly to the Office of Admissions from all secondary schools and/or colleges attended. Test of English as a Foreign Language is also required. The University may also require that they take additional tests to establish their eligibility for the academic programs and courses in which they wish to enroll. Foreign students should be certain that they have adequate funds before they come to the United States for study.

Visa Requirements

The United States Department of Justice Immigration and Naturalization Service regulations governing non-immigrant "F-1" foreign students require foreign students in this category to pursue a full course of study while maintaining non-immigrant student status. In compliance with the provisions under which this institution has been classified as a training agency for foreign students, The American University requires all non-immigrant "F-1" students to pursue a full course of study each semester during the period of their enrollment.

Under this regulation an undergraduate foreign student will be required to register for four courses (12 credit hours). Any modification of this requirement which results in a course load below these minimum requirements must be authorized by the International Student Director in consultation with the Admissions Officer and the academic adviser.

Students who fail to observe the above requirements will be ineligible to receive a *Certificate of Eligibility* (Form I-20) and all other letters of certification in support of their continuation in non-immigrant (F-1) student status.

Students in the Exchange Visitor Visa category (J-1) requesting transfer to the University's Private Exchange Visitor Program from another program number must obtain approval from the International Student Director before admission to the University becomes valid.

Registration

All foreign students are required to register in the Office of the International Student Adviser at the beginning of each semester in order to insure compliance with these requirements.

Questions concerning U.S. Immigration and Naturalization Service regulations should be directed to the International Student Adviser, Mary Graydon Center.

Tuition and Expenses

Tuition and General Fees

Charges per semester are as follows:

*Full-time undergraduates (12 or more credit hours).....	\$900
*Full-time non-degree students (12 or more credit hours).....	\$900
*Full-time law students (12 or more credit hours).....	\$840
Graduate students	\$ 64 per credit hour
Part-time law students	\$ 64 per credit hour
All other students	\$ 64 per credit hour

Given a continuation of the current economic conditions as well as the need to continue and accelerate academic growth of the University, it can be reasonably expected that tuition and fee increases within a 5-10% range will be required each foreseeable year beyond 1969-70.

Auditors pay the same charges as students enrolled for credit and are subject to all applicable special fees listed below.

Charges for institutes and other special courses may be found under their respective headings in the *Schedule of Classes*

Residence Hall Charges per semester.....	\$265 triple occupancy \$280 double occupancy
Board Charges: 5-day contract per semester.....	\$215

Special Fees (not refundable); charges listed below are not included in Tuition and General Fees. Courses and Laboratories may charge other special fees as listed in the *Schedule of Classes*:

Application fee for all degree students and for non-degree students seeking admission to a degree program.....	\$ 15
Student activities fee (required of full-time undergraduates, optional to others who participate in the University's athletic and social activities)	\$ 17 a semester
Late registration (effective first day of semester).....	\$ 10
Late payment of financial obligations.....	\$ 10
Meal ticket replacement fee.....	\$ 3 each
Returned check fee (for personal checks not honored by bank) ..	\$ 3 each
Health fee (not charged separately to fulltime undergraduate students, required of all others who wish to use infirmary facilities) ..	\$ 20 a semester
Law Students Fee	\$ 15 a semester
Admission testing	\$ 2 each test
Official transcripts (after first—not available during registration periods)	\$ 1 each
Student Picture Identification Card.....	\$1 original; \$ 5 replacement
Library card replacement fee	\$.50

Graduate Student Fees—The following charges are applicable to graduate students only:

Graduate study fee (not refundable).....	\$ 20 a year
Comprehensive examinations (with each application)	-
Master's degree	\$ 15
If taken <i>in absentia</i>	\$ 40
Doctor's degree	\$ 25
If taken <i>in absentia</i>	\$ 65

* For the purpose of determining "full-time" status, non-credit courses will be included in and equated with credit courses according to the number of hours of class meetings per week.

Supervision of thesis (if no thesis seminar is completed)	
Master's Degree	\$180
Doctor's Degree	\$360
Microfilming of thesis or case studies	
Master's thesis and case studies.....	\$ 25
Doctoral dissertation	\$ 35

Deferred Payment Plan

Students registered for three or more credit hours of course work during the semester whose total charges are more than \$180 after deducting all forms of tuition assistance may elect to use a deferred payment plan. Details are published each semester in the *Schedule of Classes*.

Financial Aid

The American University has a broad program of financial assistance for incoming freshman students. The program consists of scholarships, grants, ministerial discounts, loans and work-study opportunities. An effort is made to help needy students with a financial aid "package" consisting of a combination of the above means of aid.

The University participates in all the federal financial aid programs for which it is eligible, i.e., National Defense Education Act loans, Nursing Student loans, Educational Grants, Cuban loans, the College Work-Study Program, and the Law Enforcement Education grants and loans.

Students requiring financial assistance should contact the Director of Student Aid in the Office for Student Life. Brochures on financial aid are sent upon request.

Applicants for financial aid who are under twenty-five years of age, whether single, independent, married or dependent, must file a Parents Confidential Statement with the College Scholarship Service, Box 176, Princeton, New Jersey 08540, no later than ten days prior to the application deadline dates. Only those applicants with outstanding records will be considered for scholarships. Information gained will remain confidential and independent from this University; the Service determines the amount of need. Most government financial assistance programs require this Service to which the University subscribes in order that students may gain financial assistance. Further details are available from the Director of Student Aid.

The minimum requirements for consideration for financial assistance are a B average, a rank in the top quarter of the student's class, and acceptable College Board Scores (verbal and math).

Transfer students (except junior college graduates) are not eligible for scholarships until they have completed two semesters of work at the University. However, they are eligible for NDEA loans on admission.

Loans

There are various University loans available ranging from small short-term emergency loans carrying no interest to long-term loans with interest.

Employment

Many students also earn a portion of their college expenses through part-time employment on the campus or in the Washington community. Inquiries concerning employment other than the College Work Study Program should be addressed to the Director of Placement. See page 41.

Residence Facilities

Residence Halls

Halls for men and women are located on campus. The rate is \$265 a semester for a triple room (freshmen) and \$280.00 for a double room (upperclassmen). A residence activities fee of \$1.00 is included in the room charge for use of Residence Association Activity Programs. There are no accommodations for married couples.

Room Reservations

Applications for Residence Hall rooms should be addressed to The Housing Office, The American University, Washington, D.C. 20016 and must be accompanied by a room deposit fee of \$100.00. This fee is non-refundable if space application or notice of cancellation is received in the Housing Office later than 90 days before first day of classes in the fall (1970 date is June 10).

This \$100 will be held by the University as long as the student continues to live in a residence hall. Upon completion of his current contract or upon graduation, the \$100.00 will be refunded less any unpaid obligations provided the student has fulfilled all room reservations and contracts made by him during his attendance at the University. If returned by the U.S. Post Office, the deposit will be held for a calendar year after the student leaves, and then will be forfeited and deposited in general university funds.

Resident students must observe all regulations specified in the contract which they (and their parents if students are under 21) sign, as well as University regulations. They will be held responsible for damage to their rooms during their period of occupancy, and will be billed either individually or with roommates for damage.

Refund of Housing Payment

A schedule for refunds upon withdrawal from the University during the semester will be announced and will thereafter be available in The Housing Office. Refunds are not made to students moving off campus before completion of their contract obligation.

Room Furnishings

Each room contains a bed, chest, desk, chair and closet space for each resident. Electrical equipment brought by the students is limited to small appliances such as clocks, radios, and irons. Individual cooking equipment such as broilers and fry pans can not be used in the rooms. There are no separate kitchens in the residences and cooking of meals is not permitted.

Linen Service

An optional linen service is available to residents, costing \$28.00 a year. Arrangements for the service can be made after student receives his housing assignment.

Dining Halls

There is a cafeteria, a la carte dining room, snack bar and student social club in Mary Graydon Center. Five days (Monday through Friday) meal contracts are available for \$215.00 a semester, beginning with the first day of classes and ending on the last day of classes (excluding vacations). All resident students are urged to buy meal contracts since there are no restaurants near the University.

A student who loses his meal ticket should report it at once to the University Cafeteria Office. A charge of \$3.00 is made for each duplicate issued. In the event that a student wishes to cancel his meal ticket, applications must be made with The Housing Office *not earlier* than October 13, *nor later* than November 7, 1969. Requests from students under 21 must be accompanied by a letter from their parents giving their approval.

Health Service

During the fall and spring session, the University infirmary provides ordinary medical care and advice for most minor illnesses to full-time undergraduate students and other full-time students who pay the health fee of \$20.00. The infirmary has no facilities for bed patients, and students in need of special care, examinations, or medication or who require attention during hours when the infirmary is closed, will be referred to the Sibley Memorial Hospital (or to another hospital of the student's choice) for consultation and treatment at their own expense. Full-time undergraduate students must submit with their application for admission, a report (on a form available from the Admissions Office) on the results of a physical examination by a physician of their choice.

Health Insurance

All full-time undergraduate and graduate students may elect to participate in a program of health insurance at the time of registration. This insurance is provided through a special University Blue Cross and Blue Shield plan and is designed to cover costs of medical services beyond those provided by the University.

Banking Facilities

The University operates no student banking facilities. A number of banks are located near the University campus. As a convenience to full-time resident students, the Office of Student Accounts in McDowell Hall will normally be able to cash personal checks up to \$50.00 upon presentation of the Student Identification Card and the Student Picture Card (cost \$1.00). Hours are 9:15 a.m.-1:00 p.m. and 2:00 p.m.-3:00 p.m., Monday through Friday.

University Liability

Faculty, students, staff and guests are responsible for their personal property, clothing and possessions. The University does not carry any insurance to cover losses of such articles nor does it assume any responsibility whatever therefor.

General Academic Regulations

As a part of the process of achieving a high quality of educational experience for the student, the University is undergoing revision of its academic requirements. As a result, the information contained in this and other sections of this Catalog may be revised during the course of the academic year. Students therefore are advised to contact their dean or department chairman to ascertain what new requirements may pertain to their individual academic degree program after Fall 1969.

Undergraduate Degree Requirements**Course Hours and Determination of Credits**

Effective September, 1970, undergraduate graduation requirements will be changed from a minimum of 120 credit hours to a minimum of 32 courses. Under the course system, credit hours will no longer be assigned to courses. To determine the course equivalence of credit hours already completed, either at The American University or at another institution, please consult your academic adviser.

Further details are given in the corresponding degree programs found in a separate section of this Catalog.

Academic Load

A full-time undergraduate student may register for 12 to 18 credit hours during the fall or spring sessions. Programs in excess of 18 credit hours must be approved by the appropriate dean prior to registration. Any student employed more than 20 hours a week is encouraged to register as a part-time student and enroll for no more than 10 undergraduate credit hours per semester or for no more than 6 graduate credit hours per semester.

A graduate student is considered full-time when carrying nine or more hours. In certain instances an academic teaching unit may certify a graduate student as full-time even though he carries fewer than nine hours. Students are referred to dean or department chairman for details.

In Summer Sessions, because of the combination of five-, eight- and ten-week sessions, there are various possibilities of full-time status. A student is considered full-time who carries any of the following schedules:

- 1) six hours in either the first or second five-week session;
- 2) three hours in either five-week session and three hours in the eight-week session—student is full-time for the period of overlap of the two sessions;
- 3) three hours in either of the five-week sessions and three hours in the ten-week session—student is full-time for the period of overlap of the two sessions;
- 4) three hours in the eight-week and three hours in the ten-week session—student is full-time for the period of overlap of the two sessions.

Performance in the Major

The minimum acceptable grade for courses used in fulfillment of the requirements of the undergraduate major is C. Course credit in the major field for which the grade of D is received may be used as elective credit. If in computing all of these grades together, how-

ever, the student has less than a 1.00 average in the courses of his major field he is subject immediately to dismissal, regardless of the cumulative index.

Dean's List

The College of Arts and Sciences publishes a Dean's List after each Fall and Spring semester. A student who achieves a minimum of 2.50 semester average and completes not less than 15 credit hours of work in the semester will be included in the Dean's list.

Residence Requirements

Students in the College of Arts and Sciences will not be permitted to earn graduate credit before the last semester of the senior year.

An undergraduate student who transfers from another institution with advanced standing in the field of the major is required to do a minimum of 18 credit hours of upper-level course work in the department of the College from which he is recommended for graduation. More may be required by the department chairman.

Undergraduate University Requirements

Bachelor's Degree Requirements

The program required of the undergraduate student at The American University may be divided in five components. These are:

UNDERGRADUATE UNIVERSITY REQUIREMENTS. A pattern of courses required of all students regardless of school or major.

COLLEGE OR SCHOOL REQUIREMENTS. Additional requirements of the college or the school in which the student is registered.

MAJOR REQUIREMENTS. Courses required by the school or department of the student's major interest.

RELATED STUDIES AND TOOL COURSES. Courses related to the major which are required by the major school or department.

ELECTIVES. Courses of the student's own choice to complete the required minimum of 120 academic credit hours for graduation.

University Undergraduate Requirements Program

These requirements are currently being revised by the University Faculty Senate for later application. Students are encouraged to see their particular faculty for subsequent developments.

The Undergraduate University Requirements Program (Fall 1969) constitutes a pattern of courses required of all undergraduate students who earn either the Associate or the Bachelor's degree from The American University, regardless of their school or major. The distribution requirements concern general education in the liberal arts and are intended to involve the student in the broad areas of humanities, natural and social sciences.

Approximately one-third of the academic hours required for the bachelor's degree constitute the Undergraduate University Requirements courses. This program offers flexibility in the undergraduate curriculum and promotes a distribution of study in areas outside of a student's major interest, along with selected courses closely related to his major. If a student is unsure at the beginning of his undergraduate career as to his major objective, he may delay his declaration of major until he completes his Undergraduate University Requirements program. In fact, many advisers and departments do encourage students to complete this program before the beginning of their senior year.

However, a student need not necessarily concentrate his Undergraduate University Requirements courses in his first two years. He may begin course-work in his major as

early as his first semester. In either case, a careful and comprehensive academic plan should be formulated in order to avoid problems of scheduling and credit-hour deficits.

The regulations set forth below supersede all previous regulations concerning Undergraduate University Requirements. Students who were enrolled and have had continuous participation in degree programs of the University prior to the effective date of these regulations (which is September 1965) may follow the regulations in force at the time of their admission, or they may elect the new regulations with the concurrence of their academic advisers. No student may follow parts of both plans but must select either one or the other.

Candidates for any associate or bachelor's degree to be conferred by the University must include the following course requirements in their academic program unless otherwise relieved from such requirements by advanced placement, advanced standing or waiver.

THE UNDERGRADUATE UNIVERSITY REQUIREMENTS PROGRAM

I BASIC STUDIES (6 hours)

Composition and Reading (Normally taken in the freshman year.) (6 hours)

May be satisfied by waiver examination upon admission

II HUMANITIES (12 hours)

(Courses numbered below .500)

Art (Excluding studio or design courses.)

English (Excluding Composition and Reading and Advanced Composition.)

History (Excluding Historiography and Senior Seminar; total history credits may be counted in either humanities or social sciences, but not both.)

Languages and Linguistics (Excluding elementary and intermediate languages.)

Music (Excluding private lessons and performance courses.)

Philosophy and Religion

Speech Arts (Excluding practicum and performance courses.)

III NATURAL SCIENCES (12 hours)

(Courses numbered below .500)

Biology

Chemistry

Earth Sciences

Mathematics (Excluding all courses in statistics.)

Physics

IV SOCIAL SCIENCES (12 hours)

(Courses numbered below .500)

Anthropology

Economics

History (Excluding Historiography and Senior Seminar; total history credits may be counted in either humanities or social sciences, but not both.)

Sociology

Psychology (Excluding Experimental Psychology.)

Political Science

Explanatory note: Any course numbered below .500 which is acceptable for purposes of the College of Arts and Sciences Political Science major may be used as social science credit for University Requirements by any student in any school or major. Courses in Political Science are offered in the School of Government and Public Administration and the School of International Service.

The requirements of the various degree programs are fully stated in this *Catalog*. Each student is held responsible for his own status and progress relative to his particular objective. The role of the academic adviser is to assist the student in his academic planning, not to control his course registrations in relation to various formal requirements. The Adviser, the Dean, and the Registrar are always glad to answer questions.

Extraordinary Requirements for Undergraduates

Students in certain majors are subject to degree requirements over and above the University requirements stated before. Such requirements are found in the corresponding sections of this catalog, except the College of Arts and Sciences which are described below.

The College of Arts and Sciences—Undergraduate Graduation Requirements

Candidates for CAS undergraduate degrees in the following list of majors are subject to the additional graduation requirements stated following this list:

American Studies	Health, Physical Education and Recreation	Philosophy
Anthropology	History	Physics
Art	Interdepartmental Science	Political Science
Biology	Languages and Linguistics	Psychology
Chemistry	Mathematics	Religion
Communication	Music	Sociology
Economics		Speech Arts
Education		Statistics
English		

ASSOCIATE IN ARTS DEGREE

Some high school graduates do not, or for some reason cannot, remain in college for four years, yet desire to complete a degree program. This fact, along with the development of the junior college, has contributed to the popularity of the Associate in Arts degree which may be awarded after successful completion of two years' study or its equivalent. The College offers the Associate in Arts degree in general studies only.

To receive an Associate in Arts degree the student must (1) complete University requirements, (2) complete through the intermediate level studies in a modern foreign language, and including the above (3) have a minimum 60 credit hours of course work and a cumulative average of "C" or better. In the College, the last 30 hours must be completed in residence.

Those interested in an Associate in Arts degree must make application in the Registrar's Office by the deadline published for all degrees in each *Schedule of Classes Bulletin*.

CAS FOREIGN LANGUAGE REQUIREMENT

All undergraduate degree students in the College of Arts and Sciences must study a foreign language through its intermediate year. Individual departments of the College may designate specific languages to be used to fulfill the language requirement. Any exceptions to these must be approved by the department chairman involved. The requirement may be waived entirely or partly on the basis of high school achievement in language or a satisfactory score on the Departmental Placement Examinations and/or the Language Achievement Test of the College Entrance Examinations Board.

Foreign students who have certified their proficiency in English to the satisfaction of the Office of Admissions may use English to meet the language requirement, providing that their native tongue is not English and they have secured the approval of their departmental chairman.

Students who do not perform satisfactorily on these examinations (less than one standard deviation below the national norm) will be permitted to graduate only on the basis of special recommendation of their departmental chairman. Other examinations, or additional course work beyond the minimum stated for graduation, may be required.

MAJOR REQUIREMENTS

The University requirements and the College of Arts and Sciences language requirement, as described, provide a broad intellectual basis of general education. By the end of the sophomore year the student must choose a field of concentration, an academic major in one of the departments of the College. It is in this field that he undertakes study in depth.

An academic major requires a minimum of 24 credit hours of course work in a field of concentration. In some departments 36 or more credit hours may be required. Specific requirements are indicated in the section of this Catalog which lists departmental offerings.

Those interested in the sciences, mathematics, and music need to take specific courses in the freshman year which are prerequisite to other courses. These students should declare their interest as early as possible with the appropriate academic department and with the Associate Dean for Academic Counseling so that the proper sequence of studies can be arranged.

The requirements of a major, as well as University and College of Arts and Sciences requirements, must be completed before clearance can be given for graduation.

CAS MAJOR FIELDS OF STUDY

Major fields of study for the Bachelor of Arts or Bachelor of Science degrees are indicated along with the departmental course offerings. A single department may provide more than one specialization as, for example, in the case of the Department of Languages and Linguistics where an undergraduate degree may be earned in French, German, Russian or Spanish.

CAS APPLICATION FOR MAJOR

All students must apply to the department in which they wish to specialize. Admission to the University does not automatically constitute admission to a major program. This must be done on forms provided by the departments, the Dean's office and the Registrar's office no later than the end of the sophomore year. Acceptance is not official until specific approval has been received from the appropriate departmental chairman and is recorded in the Registrar's office.

Students on academic probation normally are not admitted to a major. For admission to major status, academic departments may establish standards beyond the minimum 1.00 cumulative average stated for the University as a whole.

CHANGE OF MAJOR IN CAS

Students who wish to change their choice of major from one department to another, or from one school to another, must go through the procedure described in the paragraph above. A change in College or School affiliation, when approved, does not become effective until the beginning of the session following the initiation of the request.

Certain departments require students to take a minimum of 12 credit hours on the 300-level or above in fields related to the major. This is to encourage breadth and interdisciplinary interest. Some departments require minors or secondary concentrations.

Departments may also have a tool requirement, such as mathematics or statistics.

Related and tool requirements of the departments are stated, along with major requirements, in the departmental sections of this publication.

CAS ELECTIVES

In addition to University requirements, College of Arts and Sciences requirements, major requirements, and related and tool requirements, the student will take elective courses to complete the minimum 120 credit hours necessary for graduation. Elective courses, which offer the student an opportunity to pursue interests in fields unrelated to his major, are considered an important part of the academic program in the College of Arts and Sciences.

CAS PRE-PROFESSIONAL PROGRAMS

Pre-professional curricula are offered in dentistry, medicine, law, physical therapy, medical technology, social work, secondary education, and theology. A student interested in one of these fields should consult the Associate Dean for Academic Counseling (Gray Hall) before his initial registration. An adviser representing the special field of interest will be assigned. The programs are:

PHYSICAL THERAPY

In physical therapy, since upper-level courses are not offered at the University, it is expected that the student will transfer to a school having the required curriculum at the end of the sophomore year.

MEDICAL TECHNOLOGY

In medical technology the work of the senior year is completed in a local medical laboratory or hospital.

PRE-THEOLOGY

Many pre-theological students are attracted to The American University. The presence of the Wesley Theological Seminary on the campus, along with the offerings of the Department of Philosophy and Religion and the religious activities under the direction of the University Chaplain, provide excellent conditions for pre-professional studies in religion.

PRE-MEDICAL

The Association of American Medical Colleges (AAMC) publishes annually an *Admissions Requirement Handbook* on pre-medical programs and the requirements for admission to AAMC approved medical schools. The pre-medical student is urged to

study a copy of this publication, which may be ordered through the Association of American Medical Colleges, Department 1B, 2520 Ridge Avenue, Evanston, Illinois.

Medical schools normally require a minimum of three years of undergraduate studies and strongly recommend completion of the Bachelor's degree. There is no inclination to prescribe the undergraduate major in view of an interest in students with varied intellectual concerns and backgrounds.

While there is some variation of practice, medical schools in general require the following undergraduate studies: two years of chemistry, one year of biology, one year of physics, and one year of English. In some instances one year of mathematics and two years of a modern foreign language also are required. It is emphasized that these are minimum requirements and, again, the student is urged to consult the *Admissions Requirement Handbook* (available in the offices of the Departments of Biology and Chemistry) and his adviser.

PRE-DENTISTRY

The basic pre-medical pattern applies to pre-dental students as well as to others interested in veterinary medicine, medical technology, and other related fields.

It is usual for medical and dental schools to require a medical aptitude examination administered in the prospective student's junior year in college. The applicant is responsible for arranging for this examination and inquiries should be addressed to Medical College Admission Test, The Psychological Corporation, 304 East 45th Street, New York, N.Y.

A Pre-Medical Advisory Committee has been established in the College of Arts and Sciences. The purpose of this committee is to assist in filing for the Medical Aptitude Test, in securing letters of recommendation, etc. It is recommended that students interested in a career in medicine consult a member of the committee early in their undergraduate program.

Graduate Degree Requirements

These degree requirements are currently undergoing revision by the University Faculty Senate for later application. Candidates for graduate degrees are advised to contact their own particular dean or department chairman for subsequent developments which may be incorporated into their programs.

Candidates for graduate degrees currently enrolled will be subject to those academic regulations in force at the time of their admission.

Admission

See page 16.

Entrance Examinations

Various Schools and Departments within the University require separate examinations such as the "Graduate Record Examination" or the "Admission Test for Graduate Study in Business" for admission. Other supporting documents such as letters of recommendation or evidence of professional experience may also be required for admission.

Evaluation of Graduate Students

The minimum cumulative grade point average required to maintain good standing in graduate study at The American University at both master's and doctoral levels is 2.0 (based on a 3.0 system) in all graduate courses attempted here and at the Consortium of Universities. Schools or departments may require higher averages.

Advancement to Candidacy

Each dean or department chairman may at his option require a formal advancement to candidacy and determine the nature of the advancement procedure it will use. Advancement to candidacy may be described as a point in the student's academic progress during which his professoriate formally evaluates his abilities for continuation in his degree program. His professoriate may also administer to him qualifying examinations in order to determine this more effectively.

Course Hour and Residence Requirements

Master's Degree. At least 30 credit hours of graduate work, including a research requirement of six credit hours, is necessary for the completion of the Master of Arts and Master of Science degrees; 24 of these, including the research requirement, must be completed in residence at The American University.

Doctoral Degree. For students who complete their entire graduate program at this University, the requirement is the equivalent of 72 credit hours of graduate work, part of which may consist of 48 to 66 credit hours of course work, and part of which may be 6 to 24 hours of either directed study on the dissertation or the non-credit dissertation seminar, depending on the candidate's individual department or school requirements.

For students admitted with a master's degree earned elsewhere, the requirement is at least 30 hours of graduate work in residence and at least 12 hours of directed study on the dissertation or of non-credit dissertation seminar, exclusive of any work taken at this University prior to application to the doctoral program.

Each doctoral candidate admitted without a master's degree must complete a minimum of 30 credit hours of graduate work *in residence* at The American University and a minimum of 6 to 12 hours of directed study on the dissertation or on the non-credit dissertation seminar depending upon his individual department or school requirements and after he has been admitted to doctoral standing.

Once a student has been admitted to graduate work toward a degree he must obtain prior permission from his dean or department chairman in order to take graduate work at another institution which will count toward his degree objective at this University. Otherwise, such work will not be counted toward a degree at this University. Such work also may conflict with residence requirements.

Tools of Research

Each dean or department chairman specifies the tool or tools of research required, if any. (See the individual school or department pages of this *Catalog* for the tools that are required.) Tools relate to research in the discipline in which the student is studying. The student's satisfaction of tool requirements is certified by the teaching unit, which may subcontract the job or do it itself. Normally, such tool or research requirements are satisfied before he attempts the thesis, dissertation, or related studies.

Examination Requirements

Master's Degree. At least one written examination, the nature and scope of which is determined by the student's teaching unit, is required. A final oral examination may be required at the option of the teaching unit. The student should consult his dean or department responsible to ascertain if it is required in his discipline.

Written examinations for master's degrees are designed to test mastery of a field of specialization. They presuppose more reading and research in the field than would normally be expected in a regular lecture-discussion course series. Such examinations are expected to show not only knowledge of the subject and appropriate professional literature but also an ability to express intelligently comprehensive concepts and fundamental issues.

Doctoral Degree. Four comprehensive examinations are required. At least two must be written and must be taken within one year after completion of residence requirements. The nature and scope of the remaining two examinations, as well as the chronology of their administration, is left to the discretion of the individual school or department in which the student is registered.

The required written examination for a master's degree administered at this University may be utilized as a qualification examination and may be substituted for one doctoral examination.

Comprehensive and other examinations (both oral and written) for doctoral candidates are designed to test mastery of both broad and specialized fields. They presuppose more reading and research in the fields than would normally be expected in a series of lecture-discussion courses. They are expected to evoke not only knowledge of the subject and appropriate professional literature but also to express intelligently comprehensive concepts and fundamental issues.

Examination Timetable

For both master's and doctoral degree students, their dean or department chairman (or designated representative) determines the time and eligibility for taking the examinations.

The Graduate Studies Office administers comprehensive examinations for graduate candidates three times a year as a service to the University academic community. Examinations are normally administered to both master's and doctoral candidates once each fall, spring and summer, with some exceptions. When administered by the Graduate Studies Office, all of a candidate's examinations must be taken as a unit. See the University Calendar in the *Schedule of Classes* for application dates.

However, a teaching unit may administer its own comprehensive examinations at times other than those indicated in the Calendar. Students who wish to be included in this latter category should consult their teaching unit directly.

All applicants for comprehensive examinations, whether administered by the teaching unit or by the Graduate Studies Office, must use the application form provided for the purpose, have it approved by their dean or department chairman, and pay the appropriate fee in the Office of Student Accounts, all before any applicable deadlines.

When application is made for Graduate Studies administration of the examinations, the candidate must take care to submit the form no later than the deadline announced in each semester's *Schedule of Classes* Bulletin.

When candidates apply for the examinations for administration by their teaching unit, prior approval must be secured, as well as the meeting of any other requirements thereto.

Examination Fields

Although proposed fields for comprehensive examinations may have been planned early in the graduate student's academic career, it is possible to change the fields up until the time the student actually submits the application for admission to the comprehensive examinations. Each school or department offers its current list of standard comprehensive examination fields, including certain "core" fields and areas in which candidates in particular degree programs must present themselves for examination. (A list of these fields is presented in the respective sections of this catalog.) A student may choose from the list (including the required core) the ones which are appropriate to his own interests and objectives.

In some disciplines, it is possible to choose a field outside the major area of interest. In choosing such a field, however, the candidate is required to choose one which is available at the time of his application to the comprehensive examinations.

Examination Grading

Normally, each comprehensive examination written by a candidate is read by two readers and is rated Distinction, Satisfactory, or Unsatisfactory by each reader. In order to pass the examinations the candidate must obtain at least Satisfactory from both readers in each of the fields in which he was examined. In the event of a disagreement in the ratings between readers as to whether or not the candidate should pass, a third reader is appointed to break the deadlock. Also, the candidate may normally receive no more than two single ratings in separate fields of Unsatisfactory (three if doctoral) in order to pass. Therefore, all readers of any one candidate must report grades before any meaningful "pass" or "fail" of the candidate can be ascertained.

Examination Grading Variations

However, each individual dean or department chairman may elect to determine a different system of grading comprehensive examinations for his own candidates. Consult the specific school or department of your major interest to ascertain what system is used. The system described above is the traditional one in use throughout most of the University.

Re-examination

In the event that a candidate for a graduate degree fails part or all of his examinations (whether qualifying or comprehensive) he may be permitted a second attempt within two years. The nature and extent of the examination or examinations to be retaken is determined by his professoriate. However, no more than one retake is allowed.

Thesis and Non-Thesis Options

For master's candidates the thesis is expected to demonstrate the student's capacity to carry on original and independent research. Some schools and departments of the University offer the opportunity to substitute a case study, an in-service project, an original creative

work, or specific advanced research courses, for a thesis for the master's degree. In every such case, the thesis seminar or other accepted alternative must be considered part of the residence requirement for the master's degree and must meet the standards set forth by the individual schools and departments as well as those of the University.

No academic credit is given for the master's thesis unless the student registers for the Thesis Seminar. However, he should not enroll for this seminar before he is ready to start work on his formal thesis proposal or the thesis itself.

Traditionally, an advisory committee is appointed for each candidate working on a thesis. The committee may be composed of one, two, or three members. An oral examination by this committee is often required. Suggestions for revision may be made as conditions to be met before members will sign the title page of the thesis. If the chairman of the thesis committee or the department chairman certifies failure to complete a satisfactory thesis, the student may be dismissed from the University.

A student who writes a thesis must adhere to the required form and content for the proposal and to the other procedures described in detail in the published guides which may be received from the Dean's Office.

Dissertation

Capping the requirements for achieving the doctorate is the dissertation, together with the required oral examination of the dissertation by the student's professoriate. Normally, the candidate must have completed all other academic requirements for the degree before the oral examination can be held.

When a candidate is declared ready to proceed to the dissertation he must submit a dissertation topic proposal reporting the results of his preliminary research. This proposal is expected to contain, among other things, a concise statement of the major problem of research and of related supporting problems, the data to be used, a selected bibliography, a statement of the probable value or importance of the study, a brief description of the methods to be used, and a preliminary outline of the dissertation in some detail.

After approval of the proposal by the candidate's adviser it is presented to the Dean of his School or College for final approval. Acceptance of the proposal indicates that the topic is a suitable one and that the dissertation will be accepted if developed adequately by the candidate. Acceptance of a dissertation topic proposal under no circumstances commits any Department or School or the University to acceptance of the dissertation itself, however. The University will take responsibility for directing research only in fields and problem areas which its faculty members feel competent to handle.

A Dissertation Advisory Committee of three to five persons is normally appointed by the candidate's academic Dean for each candidate undertaking a dissertation. After the draft manuscript has received the tentative approval of all members of the Committee, the Committee Chairman arranges for the oral examination. This covers the dissertation itself and the general field in which it lies. All members must agree that the candidate has passed the oral examination. Conditions to be met before final acceptance of the dissertation may be specified without necessarily holding a second oral examination.

If the chairman of the dissertation committee or the department chairman certifies failure to complete a satisfactory dissertation, the student is automatically dismissed from the University.

Students must either register for 6-24 hours of dissertation seminar or pay the equivalent dissertation supervision fee. The credit hours available is determined by the teaching unit.

Publication

It is the policy of the University to encourage publication of dissertations, case studies, and theses, with acknowledgment to the University. In the event substantial alterations are made before publication, this fact must be noted in the prefacing statement which gives acknowledgment.

Regulations concerning the form and preparation of the final manuscript, abstract, copy-right, and so forth may be obtained from the Office of Graduate Studies or any other Dean or Department Chairman offering the doctorate. Certain deadline dates, e.g., for submission of proposals, for submission of drafts, and for holding oral examinations, are found in each *Schedule of Classes Bulletin*, and must be met if a candidate expects to receive his degree at the following June Commencement.

The ABD Status

Candidates for the doctorate who have completed all the requirements for that degree except the dissertation (the so-called "All-But-Dissertation" status) and who entered a doctoral program without a master's degree may be awarded the appropriate master's degree from the University in the field in which their doctoral work was accomplished.

Required Graduate Study Registration

The University requires students who have been admitted to graduate degree programs to register each year for the entire academic year until they complete their entire program. Accordingly, those who do not enroll in any courses or research seminars during the school year must register in the fall semester of each year under the designation .099 Graduate Study (no credit) and pay the required fee (non-refundable). A subsequent spring or summer registration does not invalidate the necessity for registering in the fall semester.

A student in this category is entitled to use the library of the University as well as the other Consortium libraries and to consult with members of the faculty. A graduate student who does not so register, indicating his continued interest in completing his degree objective, may be subject to delay in his work or may be denied the right to continue his studies.

In the fall semester a student may register for his comprehensive examinations, if appropriate to his academic progress, in lieu of the required Graduate Study Registration, with the option of taking them at any approved designated time during the academic year. Forms are available for this purpose in the offices of the student's dean or department chairman. The appropriate fee is non-refundable. The signed receipt from the comprehensive examinations application will serve to validate his I.D. card in the Office of the Registrar in order that he may use the library facilities. (See further details regarding the comprehensive examinations application under that section in preceding pages.)

Statute of Limitations

Masters. All work for the master's degree must be completed within three years from the date of the first registration in a graduate degree program.

Doctorate. All work for the doctorate must be completed within five years from the date of the first registration as a doctoral student. However, the student is permitted seven years if he enters a doctoral program directly from a bachelor's degree.

A student who has not completed requirements in the time limits specified above must petition for re-admission if he wishes to continue.

Other Academic Regulations

Student Responsibility

The University faculty has formally adopted the following statement on student responsibility:

The American University expects that each student, as a mature member of the academic community, will adhere to the highest standards of personal integrity and good taste in his conduct and in his relationships with others.

University Liability

Faculty, students, staff and guests are responsible for their personal property, clothing and possessions. The University does not carry any insurance to cover losses of such articles nor does it assume any responsibility whatever therefor.

Class Attendance

The University expects class attendance of all students. Absences must be justified to the instructors with the understanding that it is the responsibility of the student, if he is excused, to make up whatever work has been missed.

Grading System

Grades used at The American University are:

- A = excellent (3 points)
- B = good (2 points)
- C = average (1 point)
- D = poor (0 points)
- P = pass (0 points)

F =fail (—1 point)
I =incomplete
W=withdrawal
L =auditor (no credit)

"D" Grades

No credit is received by a graduate student for a "D" grade in a graduate level course.

Pass-Fail Courses

The grade "P" (pass) indicates a quality of performance no less than "C" on a conventional grading scale.

Removal of Incomplete

The grade "I" (incomplete) is given only to students who have made arrangements in advance with their instructor for the late completion of requirements for a course. A grade of "I" must be resolved to an "A," "B," "C," "D," "P," or "F" by the instructor upon completion or failure to complete the requirements of the course within the time allowed. A grade of "W" may not be given by the instructor to remove a grade of "I".

Quality Points

Reference to quality points is included here primarily for historical purposes. With the Fall Semester 1969 the computation of Quality Point Index is discontinued due to the extensive elective use of the Pass-Fail system.

Only grades earned at The American University were computed in the cumulative index. Credits accepted on transfer from other institutions were included in the total number of credit hours applicable to degree requirements but are not included in the cumulative index. Pass-fail grades were disregarded in computation of the index.

Former Freshman Forgiveness Rule

Since the Fall semester, 1963, a freshman student who, during the first two semesters of full-time study, receives a grade of "F" in a course may repeat the course within the calendar year thereafter or in the next two regular semesters in which the student is registered at The American University. No grades shall be removed from the record but when such a course is repeated only the grade earned the second time the course is taken shall be used in computation of the cumulative average for purposes of making decisions concerning probation, dismissal and required average for graduation.

A part-time freshman student who during his first twenty-four hours of study receives grades of "F" in courses may repeat these courses within the calendar year after the semester in which the grades of "F" were received with resulting cumulative index benefits stated above.

Students who are readmitted to the University before they have begun their third semester of college work, may within one calendar year after their re-admission, retake courses in which they received grades of "F" during the first two semesters at American University with the resulting cumulative index benefits stated above.

The foregoing regulations concerning repeated courses are not applicable to students who enter the University as transfer students, including those who enter as transfer students with freshman status (less than 30 hours), or to pass-fail courses.

Pass-Fail System—Old and New

An undergraduate degree student was permitted to take on a Pass-Fail basis, four courses (each course may be for 3 or 4 credits) over his entire undergraduate program (not more than one course in a single fall or spring session) outside his major courses, his required related field courses, and his University requirements courses. Grades for these courses were recorded as satisfactory or unsatisfactory and did not affect the student's grade point index.

Beginning in the Fall Semester 1969 undergraduate students are permitted to take up to 50% of their courses on a Pass-Fail basis. (With approval of a student's major department, even a greater percentage of courses may be taken Pass-Fail.) For this reason, computation of grade point average was abolished effective September 1, 1969.

Repetition of Courses

Whenever a course is repeated, each attempt, including final grade, is entered separately on the permanent academic record. Unless specifically indicated to the contrary, however, only one successful attempt of a course is counted toward fulfillment of graduation requirements.

Transfer of Credit

Credits accepted on transfer from another institution are included as "Advanced Standing" in the total number of credit hours applicable to degree requirements, but grades earned in such courses are not recorded on the permanent academic record at The American University, and are not used in computing the "C" average needed for graduation. Only grades earned at The American University can be used for this determination.

Waiver

On the basis of tests and records the University may permit undergraduate degree students to waive all or part of the undergraduate University Requirements in Composition and Reading, and on occasion will recognize individual competency by waiving requirements in the humanities, social sciences and natural sciences.

Waiver examinations in foreign languages are given at the University during the course of the school year.

Students accepted with 60 hours of advanced standing by transfer may waive six (6) hours of the University Undergraduate Requirements. Those students with 90 hours of advanced standing by transfer may waive 12 hours of University Requirements. However, no student may graduate without at least six (6) hours in each of the three major divisions: social sciences, natural sciences, and the humanities.

When students transfer courses which are essentially "continuation courses" the grade earned in the final semester of such courses will determine whether the entire sequence is creditable for University requirements purposes only. (This regulation shall not be interpreted as granting credit hours for courses transferred with a grade below "B" or "C" according to the institution from which the courses are transferred.)

Class Standing

The class to which a student belongs is determined at the end of each academic year on the basis of the number of semester hours he has successfully completed, including those accepted as transfer credit, as follows:

0-29	Freshman	60-89	Junior
30-59	Sophomore	90-120	Senior

Independent Reading Courses and Study Projects and Non-Recurring Selected Topics Courses

An *Independent Reading Course* is defined as a course in which a student by pre-arrangement with an instructor reads a body of material with a minimum of formal instruction.

An *Independent Study Project* is defined as a course in which a student does research on a topic agreed upon by the student and the instructor, or engages in any mode of education deemed worthy of a student's efforts by the instructor responsible for the course. This may include teaching undergraduates on a guided basis, participation in educational programs off campus, travel under stipulated conditions, and so forth. In essence, this is a vehicle enabling the student to range as far as his interests and preparation carry him, subject to the approval of a faculty member, and his school or department.

A *Selected Topics (Non-Recurring) Course* is defined as any course or project involving a group of students on a non-recurring and/or experimental basis. This will include all courses which do not form a regular part of the curriculum of a department or school. In essence, this is a vehicle which will enable the faculty to offer courses on a single-time basis. It is also a vehicle for experimentation with the curriculum. It is distinguished from independent study projects in that it is open to groups of students under the same conditions by which a student registers for any course.

It is expected that registration in these courses will be at the regular registration period for a semester or summer session. It is possible, however, to register in any one of these courses until the beginning of the tenth week of a fall or spring semester, or third week of a summer session. A student desiring to begin an Independent Reading Course or Inde-

pendent Study Project after the beginning of the tenth week of a semester may do so, but he will register for it at the beginning of the following semester, and it will be included in his course hour load and tuition computation for that semester. These courses may be taken for one to six semester hours credit (the exact amount to be determined at the time of registration) and must be completed by one calendar year from the date of registration for the course.

A student registering in an Independent Reading Course or an Independent Study Project must complete a special form for that purpose. This form is available in the various teaching unit offices, or at the Office of the Registrar. Approval of the department chairman is required on this form. In the event that the project duplicates a concurrently scheduled course, the approval of the Dean of the School is also required.

Students registered in independent reading courses, or study projects, or non-recurring selected topics courses may be assigned conventional grades, or if they are undergraduate students, grades of pass or fail, according to agreement made at the time of registration. Once this agreement is made, a grade of pass or fail cannot be changed to a conventional grade, or vice versa.

With all three categories of courses, it is expected that the student will meet periodically with the instructor to review his progress. If the student is not in Washington, it is assumed that he will be in correspondence with the instructor concerning his progress. Normally, the instructor will be expected to be resident in Washington while he is supervising one of these projects.

Students permitted to enroll in the independent study courses listed below should enter on their registration cards the indicator number (1-81) of the department which will supervise their work, followed by the number of the particular course to which they are being admitted. Departments making use of a non-recurring selected topics course should list such courses using their departmental indicator number (1-81) followed by .396 or .696 and the title of the course.

Undergraduate level

- .390 Independent Reading Course (1-6 credits)
- .490 Independent Study Project (1-6 credits)
- .396 Selected Topics (non-recurring) (1-6 credits)
- .398-.399 Departmental Honors Junior Year (3 credits each)
- .498-.499 Departmental Honors Senior Year (3 credits each)

Graduate level

- .099 Graduate Study Projects (0 credit)
- .590 Independent Reading Course (1-6 credits)
- .690 Independent Study Project (1-6 credits)
- .696 Selected Topics (non-recurring) (1-6 credits)

Declaration of Undergraduate Major

Each undergraduate is required no later than the completion of 60 credit hours of course work to make a formal declaration of his major field of study on a form available from the Deans', departmental, or Registrar's Office. The application must be approved by the Dean or Departmental Chairman and filed in the Office of the Registrar.

Changes in Major and in College or School

An undergraduate student who wishes to change from one college or school to another or one major to another must receive the permission of the Dean and/or Department Chairman in charge of the program to which he wishes to transfer. This must be done on forms available from the Deans' Offices or departmental offices and filed in the Registrar's Office. A change in college, school or major affiliation, when approved, does not become effective until the beginning of the next session. It does not become effective if the student becomes subject to suspension or dismissal for failure to maintain University minimum standards.

Foreign Language Course Regulation

It is necessary to complete successfully the second semester of a beginning or intermediate foreign language course to receive academic credit for the first semester of the same course. This includes beginning and intermediate intensive language courses. The grade in the first semester of the course will be included in the academic average whether the second semester is successfully completed or not.

Undergraduate Students Enrolled for Graduate Credit

A senior student with the permission of his department chairman or Dean may enroll in specifically approved graduate courses not required for his undergraduate program. Such courses must be designated as graduate credit at the time the student registers for them. Retroactive application of these credits for such purpose is not permitted. Credits for these courses may be applied toward meeting the course requirements for a graduate degree after the student has been awarded his undergraduate degree and provided he is then admitted to graduate standing.

Transfer Credit

Students who take courses in other colleges and universities for transfer credit to The American University must receive prior approval from their advisers and the Dean of their college. This work usually is undertaken during the summer in an institution near the student's home or as a part of an overseas study program (junior year abroad). Credit may be denied if the student does not receive prior permission.

Graduation Honors

Undergraduate students are eligible to graduate with honors provided they have completed at least one-half of the credit hours of work required for their degree in residence at The American University and have achieved the requisite grade average. The average is based on courses taken at the University only. Pass-fail courses will be computed as C if passed, F if failed. Undergraduate honors and the average required are as follows: *summa cum laude*—2.9 or higher; *magna cum laude*—2.75 to 2.89; *cum laude*—2.50 to 2.749.

Honors Courses

Honors courses fulfill University Undergraduate Requirements in the discipline in which they are taught. Honors courses are courses so designated by the Honors Board of the College of Arts and Sciences or by agreement between the schools teaching such courses and the Committee on University Requirements.

A student who enrolls in courses not covered by the force of these regulations and who seeks credit toward meeting University Undergraduate Requirements may petition for permission through the chairman of the department or the dean of the school in which the course is taught and with the consent of his adviser, to the Committee on University Undergraduate Requirements.

Academic Probation and Dismissal

An undergraduate student who fails to maintain a cumulative average of "C" (1.00) is subject to dismissal. A first-year undergraduate student whose cumulative average falls below "C" may, under certain circumstances be continued on probation during a second year. In the determination of the number of hours completed, credits accepted by transfer from another institution are included, but in the determination of the cumulative average, only grades earned at The American University are counted.

Residence Requirements

The last 30 credit hours of course work for any undergraduate degree must be completed in residence. An undergraduate student who transfers from another institution with advanced standing in the field of the major is required to do a minimum of 12 credit hours of upper-level course work in the department of the college or school for which he has applied for graduation. More may be required by the department chairman or dean.

Completion of Degree Requirements and Commencement

The University confers degrees and issues diplomas at the end of the Fall Semester, the Spring Semester, and the Second Summer Session. All students who expect to complete their degree requirements by the end of one of these periods must file an "Application for Degree" available from the Office of the Registrar. The application deadline is subject to the dates established by the Registrar and published in the *Schedule of Classes Bulletin*.

A formal Commencement ceremony is held only at the end of the Spring Semester. Diplomas are mailed to students completing degrees at the end of Fall or Summer sessions unless the student requests in writing to the Registrar that the diploma be held for the annual Commencement ceremony at which the student expects to attend.

A student who, having applied for a degree for a given semester, fails to meet the requirements of the degree for that semester, *must re-apply for the degree* expected at a later date.

Regulations Subject to Change

The University reserves the right to change any of the regulations, requirements, or charges set forth in this or other published materials, and to cancel or change the course offerings, instructors, or schedules given in this announcement at any time. All students are expected to familiarize themselves with current regulations, requirements, and charges which apply to them.

General Information

Veterans' Information

All students planning to attend The American University under the provisions of a veterans' education program must submit an application to the Veterans' Administration well in advance of their registration date. The proper authorization must then be presented at the time of registration. Veterans receiving education benefits should be prepared to pay all expenses inasmuch as tuition payments are made directly to the veterans by the Veterans' Administration. Veterans who are unable to pay tuition in full at the time of registration may secure a partial deferment. (For more detailed information about the deferred payment plan consult the *Schedule of Classes Bulletin*). All veterans are advised to anticipate a delay of approximately two months before receiving their first payment. Veterans are provided further economic guidance by the Veterans' Counselor in the Office of Student Accounts.

Motor Vehicles

Freshman, sophomore and junior students who reside on the campus are not allowed to bring motor vehicles which require licensing to The American University. Seniors and non-resident students who are allowed to bring motor vehicles to the campus must register them at the Office of Student Accounts, display a valid parking permit, and observe the University's parking and speed limit regulations.

Transcripts

A student may obtain a transcript of his academic record from the Office of the Registrar. Any student may order one transcript free of charge; there is a \$1 fee thereafter.

The University will not issue a transcript which reflects only a part of a student's record, nor will it make copies of transcripts on file from other colleges and universities.

Air Force Reserve Officers Training Corps (AFROTC)

The Department of Aerospace Studies at The Catholic University of America, under provisions of an agreement with American University, offers a two-year AFROTC program.

The successful completion of this program qualifies the student for a reserve commission in the United States Air Force upon graduation. The program is designed to provide education that will develop skills and attitudes vital to the Air Force officer. Emphasis is placed on qualities of leadership and other attributes essential to progressive advancement into positions of increasing responsibility as commissioned officers in the Air Force.

Full time students who have two years remaining toward a baccalaureate degree are eligible to apply. Each applicant must meet physical and mental standards set by the Air Force. Designated applicants must complete six weeks of Field Training, conducted by the Air Force at designated bases, during the summer preceding enrollment into the program. A student must have and maintain a cumulative grade point average of 2.0 on a 4.0 scale. Applications must be made early in the academic year (October and November) prior to the one of enrollment in the program, so that all qualification criteria may be met in time for selection in the Spring.

The program is offered at The Catholic University of America. There is no tuition charge. Students accepted into the program receive a tax-free payment of \$50.00 each month. Uniforms and textbooks are furnished without cost. Students participating in the Field Training phase are paid at a rate established by the U.S. Government and are also furnished travel to and from the Field Training base.

Interested students should consult the Department of Aerospace Studies, The Catholic University of America, Washington, D.C. 20017. Telephone: 529-6000, ext. 495.

Consortium of Universities

In cooperation with Catholic University, Georgetown University, George Washington University and Howard University, The American University offers its qualified undergraduate and graduate degree students the opportunity to enroll for courses at these other universities. Such courses must be limited to those which are not offered by or which may not be immediately available at The American University. Credit earned in this program will be considered as residence credit.

Freshmen and sophomores are limited to *only* foreign language courses not offered at The American University.

To be eligible for this program, students must: (1) be fully admitted degree students, (2) be actively enrolled, (3) be in good academic standing, (4) be approved by the Registrar, and (5) be approved by their Dean or Department Chairman who is responsible for securing approval at the cooperating university.

Forms to be used for this program are available in the Registrar's Office. Students must follow the registration procedures and pay the tuition rate of this University.

The program is available for Fall, Spring and Summer Sessions.

Summer Sessions

The summer term includes two five-week sessions in succession and an eight or ten-week evening session, depending on the courses offered.

Summer Admission

Sessions are open to students of The American University and to non-degree students (see Admission section for further information). Students currently enrolled in The American University (degree and non-degree) have the option of registering during the advance registration period or at the general registration. Students who are currently enrolled in another accredited institution and are in good standing may register by mail or at the general registration. Students not currently enrolled at another institution may register by mail or at the general registration. Forms and instructions for the mail registration are contained in the Summer Sessions Bulletin. All completed forms and correspondence should be sent to the Director of Summer Sessions, The American University, Washington, D.C. 20016.

Summer Curriculum

Course offerings are designed with several audiences in mind. Special emphasis is placed on graduate courses for those interested in professional advancement in the areas of education, business, and government. A limited number of high school seniors may enroll in selected courses for college credit. Interested students must contact the Director of Summer Sessions for approval to register.

Summer Housing and Facilities

For information regarding housing and food services during the summer, students are advised to write to those offices directly (see the Correspondence Directory on page 5). Additional campus facilities available to summer students include a swimming pool, sauna bath, sports program, theatre, and musical events. All facilities on campus are air-conditioned. Students are allowed to bring automobiles on campus. There is no University registration required in the summer and parking is free. In addition to the facilities available at the University, students can take advantage of the easily accessible and varied attractions of the Nation's Capital. Information on transportation and on special summer events scheduled in the Washington area is available in the Office of Student Activities.

Continuing Education Service

The College of Continuing Education maintains through its day and evening programs academic advisory services, giving special attention to each student's individual needs.

Students are encouraged to seek academic counseling at any time during the semester. A full-time staff of counselors is readily available on the campus from 9:00 a.m. to 5:00 p.m. Monday through Friday. For the benefit of the evening student, limited counseling is offered from 5:00 to 8:30 p.m. Monday through Thursday.

Particular emphasis is given in the areas of determining academic load, assisting in course selection, and in determining the overall academic standing of the student.

Students are referred to other departments of the University as the need arises. Those

considering graduate programs in other departments of the University are urged to consult these departments in advance of registration.

When appropriate, students are referred to the professional services of the University Counseling and Testing Center for assistance in choosing vocational and educational objectives, assessing educational strengths and skills, and for help with problems of personal and social adjustment.

Off-Campus Study

The College of Continuing Education arranges for course offerings at selected off-campus locations in the metropolitan Washington area.

Off-campus programs may include both graduate and undergraduate courses in all fields offered by the University and come under the same regulations and conditions as credit earned in courses meeting in University facilities on campus.

Although the scheduling of off-campus classes follows the general pattern of the University calendar and time schedule, it does not necessarily conform to the on-campus session dates in all details. The off-campus bulletin for each session should be consulted for further information.

Registration Procedure

Registration is conducted on the dates specified on the academic calendar published in the *Schedule of Classes Bulletin*. In order to register for courses a student must:

- 1) be admitted to the University or be approved for enrollment for non-degree study;
- 2) have a Social Security number;
- 3) secure approval of his program of study from his academic adviser;
- 4) complete the necessary registration forms and pay his tuition and fees, and
- 5) turn in all registration forms to registrar representatives.

More detailed information about registration will be found in the *Schedule of Classes Bulletin*.

Advance Registration

All degree students, full-time or part-time, undergraduate or graduate, are expected to register in advance for Fall and Spring semesters. No financial obligations are included in Advance Registration. Payment of tuition and fees must be completed by dates announced for each semester in the *Schedule of Classes Bulletin*. Full details on Advance Registration are issued each semester by the Office of the Registrar.

For Summer Sessions an advance registration is available to those students, degree or non-degree, who wish to take advantage of it. Details are available from the Director of Summer Sessions. See also page 38.

Late Registration

Late registration (subject to a \$10 fee) is permitted during the period provided on the academic calendar. No student will be allowed to register after these dates.

Auditors

A student who wishes to attend a class but who does not wish to participate, take examinations, receive a final grade, or receive credit for the course may register as an auditor. Tuition and fees for auditors are the same as those for credit registered students.

Non-Degree Student Registration

If a student does not wish to pursue a degree program but desires to register for particular courses for which he has the necessary qualifications, he may be considered for admission to the College of Continuing Education as a non-degree student. He receives full academic credits for courses taken (unless he registers as an auditor, in which case he is not responsible for attendance or examinations and does not receive a grade or academic credit.)

Changes in Registration

Withdrawals

A student may withdraw from a course from the beginning of a semester until the end of the tenth week of classes without a signature of instructor or adviser. From the beginning of the eleventh week of classes, a course withdrawal will be allowed only with the written approval of the dean of his school or the dean's designate. Consultation with and approval of the instructor may be required. A course withdrawal will be indicated by the grade **W**. It is to be understood that no grade of **W** can be given in any session after the last class meeting for that session.

A student who is withdrawing completely from the University must secure the signature of his Dean on the "Course Registration Change" form and then file this form in the Office of the Registrar. Students who cease to attend classes but do not file an official withdrawal with the Office of the Registrar may be given final grades of "F." Discontinuation of attendance at class or notification to the instructor does not constitute an official withdrawal.

Refunds or cancellations of tuition are pro-rated and are calculated from the date the "Course Registration Change" form is filed in the Office of the Registrar and in the Office of Student Accounts. Requests for cancellation of room charges and meal tickets must be processed through the Residence Halls Business Management Office and will be subject to standard University regulations.

Students who discontinue class attendance but who do not officially withdraw during the cancellation period will be responsible for payment of the full amount of the applicable tuition and fees.

Adds

Courses may be added through the second week of classes of a semester. From the beginning of the third week of classes, no course adds or section changes will be allowed.

Special Programs

A variety of special programs add distinction to the intellectual and cultural climate of the campus. The brief description of each which follows can be supplemented by more detailed information available in the Office of Admissions.

Institutes

An institute is a specialized and intensive academic offering of the University designed primarily for persons engaged in professional fields. Institute programs are developed in consultation with specialists in business organizations, government agencies, and national associations located in Washington and consist of formal lectures and seminar discussions, field and laboratory work, reading assignments and research projects. A partial listing of Institutes, Centers and special programs follows and other listings will be found under each College and School.

Center for Liberal Studies

Associated with the College of Arts and Sciences, the Center sponsors an Artist-in-Residence from one of the liberal arts and also presents an annual spring forum when experts lecture at the University in sessions open to the Washington community.

Washington Semester

Undergraduate honor students from 101 institutions throughout the United States come to The American University for one semester to study government in action through seminars, independent research, course work and field trips to government agencies. Many of the Washington Semester students return after graduation from their own colleges to pursue graduate work in areas opened to them through this program.

Consortium of Universities

The American University is one of five institutions in Washington engaged in a program to coordinate the use of their respective graduate facilities. This program enables qualified students who are working toward a graduate degree to supplement courses available at their own universities with offerings at the other four.

Special Lectures

Each year the Student Association and certain classes and clubs bring to the campus, as part of their regular programs, outstanding leaders in government and public administration for lectures and discussions with interested students. Senators, Representatives, staff members of Congress, administrative officers, political party officials and other public affairs leaders have met with students in recent years.

The Department of Philosophy and Religion also sponsors guest lecturers who include outstanding spokesmen in the area of philosophy and religion. This department sponsors the annual "Faith and Freedom" lectures which bring distinguished scholars to the campus to discuss some aspect of man's spiritual heritage relative to its implication for the concept of freedom. Lectures on religion are also sponsored by the Chaplains and the Inter-Religious Club Council.

Humanities Symposium

In recent years the Division of the Humanities has sponsored an annual Humanities Symposium. This symposium, which brings a panel of scholars to the campus to discuss an announced topic, is conducted in the spring by one of the departments in the area of the humanities and the fine arts.

Off-Campus and In-Service Programs

The College of Continuing Education, which is designed to meet the educational needs of part-time students, administers a program of credit and non-credit courses at twenty centers in the Washington area and at certain Army and Air Force installations in the South. The College also operates a degree-granting branch at Fort Benning, Ga. Course offerings are selected from all schools and departments of the University except the Washington College of Law and the School of Nursing.

Government Workshop Abroad

The School of Government and Public Administration sponsors a Comparative Government Workshop Abroad as a part of its summer program. Students may earn academic credit by participating in a field study of foreign governments.

Student Services

The Office for Student Life develops policies and procedures to complement the University's formal instruction program. This program is implemented through the offices of: Placement Center, Counseling Center, Financial Aid Office, International Student and Faculty Exchange, Student Health Center, Housing Office, Chaplain's Office, and Student Activities.

Placement Center

The Placement Center assists students and graduates of the University interested in obtaining part-time, temporary, and summer employment, and in seeking career employment to start after graduation. For the student needing part-time or temporary employment, the Center offers information and assistance relative to a fairly wide variety of job openings on the campus and in the Washington metropolitan area. The Center also has listings of many room and board situations for students and listings of job openings for part-time students needing a full-time job. In career placement services, the Placement Center provides counseling guidance and other assistance in the important aspects of career job seeking. This Center maintains for student use reference materials pertaining to career employment opportunities in a broad range of employer organizations. It provides a referral service whereby credentials for applicants for career employment, particularly teaching candidates, are referred to interested employers on request.

Through an annual campus interview program, the Center offers an opportunity to graduating students for interviews with representatives of numerous business and industrial firms, government agencies and school systems seeking career employees.

Counseling Center

The aim of the University Counseling Center is to assist students to better understand themselves, to deal most effectively with important decisions, and to resolve problems. An extensive program of professional psychological services is provided for help with vocational, educational, personal and social matters. In addition, a full range of testing services is available together with an occupational information library and a Reading and Study Skills program. Contacts are confidential.

Academic Advisement—Under the direction of the Associate Dean of the College of Arts and Sciences, freshman students are assigned in small numbers to faculty members for guidance in planning their academic programs. They remain with these advisers until they have decided upon a major area of study at which time they are assigned to advisers in their specialized fields. Students who wish help in selection of career rather than planning of coursework are advised to consult with the Counseling Center in addition to their academic adviser.

Religious Counseling—The Chaplains are available for counseling concerning religious, moral, or other personal counseling of a similar nature.

Financial Aid Office

See page 21.

International Student and Faculty Exchange

The Office of International Student and Faculty Exchange provides specialized services geared to the needs of foreign nationals and to U.S. students contemplating study outside the United States. These services include the general counseling and guidance of foreign students; coordination of U.S. and foreign faculty exchange and guidance for U.S. student study abroad. Graduate level internships and individual reading or research courses are also provided for selected graduate and undergraduate students interested in international educational and cultural exchange vocations.

Student Health Center

The Student Health Center is available to all full-time undergraduate students. This service is for diagnostic purposes and the care of minor illnesses only; the infirmary has no facilities for bed patients. Students whose health problems are more complex will be referred to nearby Sibley Memorial Hospital or another hospital of their choice for treatment.

Dispensary Hours: 7:30 am to 10 pm
Monday thru Friday

9 am to 3 pm
Saturday

Closed on Sunday

Doctor's Clinic Hours: 8 am to 11:30 am
Monday thru Friday

11 am to 1:30 pm
Saturday

Holiday Hours: 9 am to 5 pm
Monday thru Friday

Closed Saturday and Sunday

Student Insurance Plan—All full-time students may elect to participate in the Student Accident and Sickness Insurance Plan at the time of registration. Detailed information concerning this plan is available in the Student Health Center.

Worship Services

Each week during Fall and Spring Semester (except academic holidays) worship services are held at the Kay Spiritual Life Center on the following schedule:

Sunday:	Episcopal Communion — 9 am Roman Catholic Mass — 10 am & 12:45 pm Protestant Worship — 11 am
Thursday:	Christian Science (time and place to be announced)
Friday:	Jewish Sabbath Services— 7:30 pm

In addition, Roman Catholic Mass is celebrated daily at 12:15 pm and confessions are heard daily 11:30-12 noon and 4-5 pm

Mail Service

The University maintains a U.S. Post Office contract station on the campus where students may rent mail boxes for a small fee. Mail boxes are furnished resident students in each dormitory without charge.

Office of Student Accounts

Following admission to the University, students handle all financial transactions with the University, including the cashing of checks, through the Office of Student Accounts.

Campus Store

The Campus Bookstore carries all required textbooks, a large selection of non-required books, all necessary paper supplies and stationery, college sportswear, college jewelry and gifts, phonograph records, magazines and newspapers, film and toiletry items.

Student Activities

The Student Activities Center assists both student groups and individual students in the facilitation of learning and personal growth beyond the classroom. The staff members specialize in activities counseling, advising and coordination of organizations, providing leadership training, and personal development programs. Students in conjunction with the Activities Staff and the administration work together in developing programs related to student life.

As a result of the University commitment to the awareness of student needs, a broad spectrum of experience relevant to the current life goals, and needs of students is provided by a trained, professional staff.

Student Association

The Student Association, an organization of all full-time undergraduates enrolled in all of the schools and colleges of the University, coordinates functions of campus groups and social life. The legislative and policy-forming functions of the Student Association are performed by the Student Senate. This group is composed of officers and representatives of the student body.

Other student government groups are: Women's Residence Association, Inter-Fraternity Council, Panhellenic Council, Inter-Club Council, Judicial System, Inter-Religious Council and the Social Action Council.

Judicial System

The Judicial System is a new branch of the campus government. It is a program structured along the fundamentals of basic due process, for the hearing and resolving of complaints against students. Underlying the entire program is a deep regard for discipline as a constructive element of education.

Inter-Religious Council

IRC coordinates the activities of the various religious groups and plans such general religious activities as the "University Lectures on Religion," the religious portion of Orientation Week, and the "Expresso Houses," which occur frequently throughout the year.

Social Action Council

The Social Action Council is dedicated to education, participation and change. Focusing upon the problems of the city, SAC sponsors campus-wide training programs and speakers on urban affairs. SAC is involved in such projects as the Washington Area Study Project, D.C. General Hospital Program, Newman Association Tutoring Program, service fraternities, a mental health program and the Organization of African and Afro-American Students at The American University (OASATAU).

Athletic Program

The University participates in an intercollegiate athletic program that includes soccer, cross country, wrestling, basketball, swimming, tennis, golf, baseball, softball, track, and crew. There is intramural competition in touch football, basketball, softball, track, swimming, bowling, and volley ball. In addition, individual competition is available in tennis, checkers, golf, horseshoes, chess, badminton, table tennis, free throw, shooting and archery.

Dramatics

The American University Players present several classic and contemporary productions throughout the year and also schedule play readings, one-act plays, and dramatic television productions. Through work in various phases of campus theatre, points may be acquired to meet the requirements of active membership in the Green Room Players Club.

Music

Musical groups on campus include The American University Chorale, The American University Orchestra, and The American University Singers. Each of these groups presents concerts during the year. The Singers schedule concert tours in addition to their campus programs. Qualified students may register in any of these musical organizations for one credit hour per semester.

Professional and Honorary Societies

At American University students can strive for election to both professional and service honoraries. The professional honoraries are established in the fields of: biology, debate, dramatics, education, German language, graduate work, history, journalism, leadership, marketing, mathematics, music, political science, speech arts, and transportation. The service honoraries are: Omicron Delta Kappa (men), Mortar Board (women), and Tassels (women). There is also a chapter of the National University Honor Society, Phi Kappa Phi, on campus.

Publications and Broadcasting

Students publish a weekly newspaper, the *Eagle*; a literary magazine, *The American*; and a yearbook, the *Talon*. The student radio stations WAMU-AM and WAMU-FM broadcast daily.

Service Organizations

There are two service organizations whose University chapters are nationally affiliated. Alpha Phi Omega, for college men, provides a wide fellowship program with many leadership and service opportunities. The women's service sorority, Gamma Sigma Sigma, performs a variety of services for the University and community, including assistance in the Settlement Houses in the Washington area.

Social Organizations

The University currently has chapters of fourteen nationally affiliated sororities and fraternities. The six sororities on campus are: Alpha Chi Omega, Alpha Epsilon Phi, Delta Gamma, Kappa Delta, Phi Mu, and Phi Sigma Sigma. The eight fraternities include: Alpha Epsilon Phi, Alpha Tau Omega, Alpha Sigma Phi, Phi Epsilon Pi, Phi Sigma Kappa, Tau Epsilon Phi, Zeta Beta Tau, and Zeta Psi.

Degree Programs

Following are graduate and undergraduate degree requirements listed in alphabetical sequence.

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Courses are listed beginning on page 153.

American Studies

Correspondence Directory: FRANK TURAJ, *Chairman, Committee on American Studies*

Fields of Study

Art, Anthropology, Communication, English, Education, Economics, International Service, Speech Arts, Music, Philosophy, Religion, History, Public Administration, Government.

Undergraduate Degree

Bachelor of Arts

The program in American Studies is available through registration in the College of Arts and Sciences. Students interested in this program should seek the advice of a member of the American Studies Committee.

University Requirements

See page 23.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Course Requirements

MAJOR REQUIREMENTS

Students majoring in American Studies must complete 36 hours of courses from the list of courses approved for this program (see list below). The 36 hours must include:

33.100-1 American Civilization (6)

A 12-hour concentration within a single school or department of the College of Arts and Sciences.

12 hours of elective courses from departments other than that of the concentration.

.490 Senior Essay Seminar I and II (6)

RELATED REQUIREMENTS

In addition to courses completed for the major, the student is required to complete 12 hours of related courses (not including courses from a single school or department of the College of Arts and Sciences. The student is encouraged to complete these courses in the school or department of his concentration.

Electives

The student is required to elect sufficient courses to complete a minimum of 120 hours.

List of Courses

Anthropology:

3.333 New World Prehistory

3.531 Archaeology (limited to the topic: Northeastern U.S. Archaeology)

3.539 Ethnology (limited to the topic: North America)

Art:

7.511 Art in the United States: Architecture

7.512 Art in the United States: Painting

Communication:

17.100 Introduction to Mass Communication
(Special section for American Studies Program)

17.500 Communication History

17.501 Legal Aspects of Communication

17.503 Mass Media in Society

17.507 Freedom of Information

17.544 Public Relations and Government

17.558 History of Motion Pictures

Economics:

- 19.308 The Economic Development of the United States
- 19.544) } Urban Economics I and II
- .545) }
- 19.572 History of the U.S. Labor Movement

Education:

- 21.512 History of Education in the United States

English:

- 23.320 American Literature I
- 23.321 American Literature II
- 23.390 American Negro Literature
- 23.504 Modern American English
- 23.540 Emerson and His Era
- 23.541 Howells and His Era
- 23.542 The Romantic Tradition
- 23.543 The Realist Tradition
- 23.544 The American Novel I
- 23.545 The American Novel II
- 23.546 Poetry in America
- 23.547 Modern American Literature
- 23.549 Modern American Drama

History:

- 29.211 History of the U.S. I
- 29.212 History of the U.S. II
- 29.317 Economic and Social History of the U.S. I
- 29.318 Economic and Social History of the U.S. II
- 29.321 The Afro-American in U.S. History
- 29.333 The City in History
- 29.511 Period Studies in U.S. History
- 29.531 Topics in U.S. History I
- 29.532 Topics in U.S. History II
- 29.555 Intellectual History of the U.S. I
- 29.556 Intellectual History of the U.S. II
- 29.565 Economic History of the U.S. I
- 29.566 Economic History of the U.S. II
- 29.573 History of U.S. Foreign Policy I: 1766-1889
- 29.574 History of U.S. Foreign Policy II: 1889 to the present

Music:

- 43.103 The Evolution of Jazz

Philosophy and Religion:

- 47.303 American Philosophy
- 47.504 Contemporary Philosophy: Naturalism

Sociology:

- 65.345 American Sociology
- 65.350 Sociology of the Afro-American I
- 65.351 Sociology of the Afro-American II
- 65.347 Race Relations
- 65.548 Race and Culture Contact
- 65.550 The City
- 65.567 Urban Redevelopment

Speech Arts:

- 67.351 Introduction to Public Address
- 67.352 Public Address in Contemporary Society
- 67.595 Seminar in Public Address: Black Oratory (Fall 1969)
- 67.556 History of the American Theatre

School of International Service:

- 33.100 American Civilization I
- 33.101 American Civilization II
- 33.403 American Civilization: Senior Seminar
- 33.430 American Foreign Policy

School of Government and Public Administration:

- 53.150 The U.S. Political System I
- 53.250 The U.S. Political System II
- 53.350 U.S. Constitutional Law I
- 53.450 U.S. Constitutional Law II
- 53.345 Government and the Metropolis
- 53.351 Political Dynamics
- 53.451 Political Parties and Interest Groups
- 53.352 The Legislative Process
- 53.452 The National Executive

Anthropology

Correspondence Directory: HARVEY C. MOORE, *Chairman*.

Fields of Study

History of Anthropological Method and Theory, Ethnology and Social Anthropology, Ethnography, Linguistics, Archeology (Old and New World), Physical Anthropology, Culture Area Analysis, Ethnohistory, Culture Change.

Undergraduate Degree

Bachelor of Arts

University Requirements—See page 23.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Department Requirements—Major Courses

Introductory Courses (6 hours):

- 3.201 Introduction to Cultural Anthropology
- 3.202 Biocultural Evolution

Courses at .300-or-Above Level (27 hours)

- 37.300 Introduction to Language
- 3.331 Variation in Man
- 3.332 Old World Prehistory or 3.333 New World Prehistory
- 3.335 Ethnographic Survey or 3.336 Social Structure
- 3.543 Analytical Methods: Quantitative and Qualitative
- 3.545 History of Theory

and 9 hours of electives in Anthropology, at the .300 level or above, to be chosen in consultation with departmental advisor.

The student may apply other courses in Linguistics offered by the Department of Languages and Linguistics if his department advisor approves.

Related Courses

As part of university requirements:

65.200 Introduction to Sociology, 57.200 General Psychology. (A broad foundation in social sciences is recommended.)

Two semesters of approved laboratory science are recommended.

Courses at 300-level or above chosen in consultation with departmental adviser.

Electives

To complete minimum of 120 hours.

Graduate Degrees

Students should consult department office for specifics on graduate program.

Master of Arts

Course Requirements

Minimum of 30 hours of approved graduate work including at least twelve hours on the .600 or .700 level, of which six hours is 3.797 Master's Thesis Seminar. Designated core courses in theory and method mandatory in first year of graduate work.

Written Comprehensive Examinations

Two written examinations including one in the general history of anthropological theory and method; one in a specialized field of anthropology or an approved related field. A preliminary oral examination in general anthropology may be required after 12 hours of graduate work.

Other Requirements

Thesis and oral defense of thesis.

Graduate Examination Comprehensive Fields

CORE FIELD

3.006 History of Anthropological Method and Theory

SPECIALIZED FIELDS

3.016 Ethnology and Social Anthropology

3.017 Ethnography (a specified area)

3.018 Linguistics

3.019 Archeology (Old World)

3.020 Archeology (New World)

3.021 Physical Anthropology

3.022 Cultural Area Analysis (with emphasis on specified area)

3.023 Language and Cultural Analysis

3.024 Ethnohistory

3.025 Culture Change

Doctor of Philosophy

Admission

See page 16. The Graduate Record Examination and two or more letters of reference are recommended.

Course Requirements

See page 29.

Minimum of 72 hours of approved graduate work is required, including 3.799 Doctoral Dissertation Seminar (may be repeated for up to 24 hours). Students entering the Ph.D. Program with M.A. degrees in anthropology earned elsewhere must complete 30 hours of course work in residence plus 12 hours of dissertation credit. Students registered at the University and completing the requirements of a Master's degree except for the Master's Thesis may substitute six hours of course work or research projects and proceed to doctoral work if their performance is of enough distinction in the minds of the faculty to warrant such a decision.

Comprehensive Examinations

1. An oral examination on general knowledge of anthropology is required after 24 hours of graduate work for students who enter the Ph.D. Program without an M.A. in anthropology. For students with an M.A. in anthropology from other institutions this examination will be taken during the first year of graduate work (usually during the first semester of that year).

2. A minimum of four comprehensive examinations, including 3.006 and 3.025 and two approved elective fields. Scheduling of examinations is by approval of departmental chairman but all examinations must be taken within one year of completion of residence requirements.

3. A dissertation and an oral defense thereof.

Other Requirements

A working knowledge of two languages useful as tools in library and/or field research or an acceptable substitute for one language is required. Statistical or computer analysis would provide such a substitute. Choice is to be evaluated and approved by the department in terms of the nature of the student's research interests and the needs of a career in Anthropology. Admission to candidacy for Doctorate of Philosophy is contingent on a passing performance on four comprehensive examinations and fulfillment of the tool requirements specified above.

Art

Correspondence Directory: ROBERT D'ARISTA, *Chairman*

Undergraduate Degree Bachelor of Arts

University Requirements. See page 23.

Language Requirements. See page 26.

Departmental Requirements

MAJOR COURSES (30-36 hours)

Students majoring in Art complete one of the following five programs of study (these are minimal requirements):

FINE ARTS—36 hours of Studio courses (painting, drawing, ceramics, sculpture and printmaking) with at least 6 hours in three of these five Studio fields.

ART EDUCATION—30 hours of Studio courses with at least 3 hours in each of five Studio fields (painting, drawing, sculpture, printmaking or etching and ceramics) and at least 12 hours (including above 3 hours) in one of these Studio fields. Six hours in 5.370 Crafts for the Art Teacher and 5.371 Methods of Teaching Art. 5.371 are taken in conjunction with 21.445 Student Teaching: Secondary Schools, 9-12 hours.

DESIGN—30 hours of Design courses including 5.348/9 Design Techniques I & II, 5.350-1 Design Fundamentals I & II, and 6 hours of Studio courses.

INTERIOR DESIGN—18 hours of Interior Design courses, 12 hours of Design including 5.350-1 Design Fundamentals I & II and 5.348-9 Design Techniques I & II, and 6 hours of Studio courses.

ART HISTORY—30 hours of Art History including 7.100-1 Survey of Art I & II.

RELATED COURSES

All Art majors (in any of the five programs listed above) are required to take 12 hours of art history, including 7.100-1 Survey of Art I & II. Those in the Interior Design program are to include 7.102-3 Survey of Decorative Arts I & II in their art history requirement.

Majors in the Art Education program are required to take 12 hours of art history, 6 hours in 21.300 Foundations of Education, and 9-12 hours in 21.445 Student Teaching: Secondary Schools.

All Art History majors are required to take 6 hours in Studio courses and 12 hours in related Humanities or Social Sciences at the .300 level or above.

ELECTIVES

Sufficient other courses, including the University Requirements, are required to complete minimum of 120 hours.

Graduate Degrees

Master of Fine Arts

IN PAINTING OR SCULPTURE

Course Requirements

Requirements include a minimum of 36 credit hours of approved graduate work, including: 6 credit hours in 5.797 Master's Thesis Seminar; 21 credit hours in Studio chosen from 5.520/1; 5.533; 5.560; 5.700; 5.792; 5.793; and 5.794; and 9 credit hours in graduate art history.

Written Comprehensive Examinations

Two are required, including one in theory and techniques of painting or sculpture, and one in a specialized field of art history.

CORE FIELDS in Fine Arts (choose one):

5.001 Theory and Techniques of Painting

5.002 Theory and Techniques of Sculpture

SPECIALIZED FIELDS in Art History (choose one from the list below under Master of Arts degree):

Thesis

Execution of an original work or works of art defended by written critical analysis of problem undertaken.

Master of Arts

IN ART HISTORY

Admission Requirements

A minimum grade average of B in undergraduate major is required. If undergraduate major was not in Art History, students admitted to program will be required to have completed or complete 18 hours in Art History in addition to 30 hours required for degree. Reading knowledge of French, German or Italian must be certified during first semester (see Language tool requirement).

Course Requirements

Requirements are a minimum of 30 credit hours of approved graduate course work (combined total of at least 48 credit hours of undergraduate and graduate art history) including 6 credit hours in graduate research seminars (7.792 or 7.793).

Written Comprehensive Examinations

Two, including one examination in Core Field and one in Specialized Field.

CORE FIELD:

5.003 Survey of Western Art (Greek to Modern).

SPECIALIZED FIELDS:

5.009 Medieval Art

5.010 Renaissance and Baroque Art

5.011 Modern Art

5.015 Sculpture: Renaissance through Modern

5.018 Painting: Renaissance and Baroque

5.019 Painting: Rococo through Modern

5.020 Art in the United States

Thesis Substitution

Satisfactory completion of a substantial research paper in each of two Master's Research Seminars is required to complete the degree.

Biology

Correspondence Directory: FALCONER SMITH, *Chairman*

Fields of Study

General Biology, Microbiology, Plant Sciences, Development, Biology (Embryology or Genetics), Physiology, General Zoology.

Undergraduate Degree

Bachelor of Science, Bachelor of Science emphasis Medical Technology**

University Requirements

See page 23.

Note: Science and mathematics are normally satisfied by major and related requirements. Consult department.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation and the courses selected at the University.

Recommended languages: French, German or Russian.

Department Requirements

Major Courses (40 hours)

- 9.110 General Biology I (4)
- 9.111 General Biology II (4)
- 9.304 Comparative Anatomy I (4)
- 9.305 Comparative Anatomy II (4)
- 9.332 Cell Physiology (4)
- 9.356 Genetics (4), and 16 additional hours

Related Courses (26 hours)

- 15.110 and 15.111 General Chemistry I and II (8)
- 15.310, 15.311, 15.320, 15.321 Organic Chemistry I and II (10)
- 51.210, 51.222, 51.211, 51.223 Elements of General Physics I and II (8)

Tool Courses (6 hours)

- 41.110 Fundamentals of Mathematics and 41.111 Analytical Genetics and Introduction to Calculus (6)

Electives

Additional courses to complete a minimum of 120 hours.

Graduate Degrees

Master of Science

Course Requirements

Minimum of 32 hours of approved graduate work, 15.586 Fundamentals of Biochemistry (4) and 9.797 Master's Thesis Research (6) and 2 hours of Graduate Seminar, 9.700 (1).

Written Comprehensive Examination

Two, 9.006 General Biology and one selected from the fields listed below.

Other Requirements

Thesis and oral defense of thesis and oral qualifying examination for advancement to candidacy.

** Students interested in Medical Technology should consult Department for curriculum requirements other than those described in this Catalog.

Other Graduate Degrees

See page 110 for information concerning requirements for the Master of Science in Science Teaching.

Graduate Comprehensive Examination Fields

9.001 Microbiology	9.004 Physiology
9.002 Plant Sciences	9.006 General Biology
9.003 Development Biology (Embryology or Genetics)	

Business Administration

Correspondence Directory: NATHAN A. BAILY, *Dean*
 JAMES OWENS, *Assistant Dean for Undergraduate Program*
 HAROLD F. SYLVESTER, *Assistant Dean for Masters' Program*
 NIKOS G. PHOTIAS, *Associate Dean for Doctoral Program*

Fields of Study

Accounting, Advertising, Business-Government Relations, Business Law, Management, Computer Systems, Management Information Systems, Church Management, Finance, Investments, Industrial Relations, Operations Research, Personnel and Manpower Management, Insurance, International Business, Managerial (Business) Economics, Marketing, Production (Industrial) Management, Real Estate and Urban Development Planning, Research and Development Management, Technology of Management, Transportation, Logistics, and Traffic Management.

Undergraduate Degrees

The undergraduate curriculum builds limited professional specialization on the foundations of a broad general education. It combines courses in business and related field with general studies in humanities, natural and social sciences, and mathematics.

Admission

Students interested in any of the major programs will find the requirements on admission on page 12.

University Requirements

See page 23.

Associate Degree in Business Administration

This is used largely by part-time students to mark somewhat better than "half-way" progress toward the Bachelor's degree toward which all credits satisfactorily completed apply. Earning it in the minimum of 66 credits, however, involves going out of the "ideal" sequence for the Bachelor's degree. A minimum average of "C" is required.

Limited concentrations are offered in General Business and in Accounting.

Bachelor of Science in Business Administration

This degree requires a minimum of 120 credits (forty courses) with at least a "C" overall average and at least a "C" grade in each course in the major. The breakdown of required courses are as follows:

- CATEGORY 1—*University Requirements* (required by University and School)—54 credits (Eighteen Courses):

General studies in basic areas of knowledge for broad, rounded education and as foundations. Designed to strengthen basic skills, provide background of knowledge whereby

students can move easily in the world of ideas, and increase appreciation of values of our society.

Composition and Reading (6)	Science-Mathematics (12)
Social Sciences (12)	Statistics (6)
Humanities (12)	Approved Non-Business (6)

• **CATEGORY 2—Core Requirements—Business Administration, 42 credits (Fourteen Courses):**

Fundamental management tools, exposure to basic areas of business. Common core of broad, thorough foundation for all business students.

(a) **Required 24 credits (Eight Courses):**

- 10.306 Introductory Accounting I (3)
- 10.307 Introductory Accounting II (3)
- 10.201 Business Law I (3)
- 10.465 Business Finance I (3)
- 11.300 Marketing I (3)
- 10.481 Principles of Production (3)
- 10.456 Process of Management (3)
- 10.458 Business Policy (3)

(b) **Six of following, depending on major (18 credits) (Six Courses):**

- 10.302 Business Law II (3)
- 10.466 Business Finance II (3)
- 11.301 Marketing II (3)
- 10.491 Personnel and Manpower Management (3)
- 10.500 Private Enterprise and Public Policy (3)
- 11.526 Fundamentals of International Business (3)
- 10.431 Fundamentals of Income Tax (3)
- 55.410 Introduction to Data Processing (3)
- 10.558 Ethics in Management (3)
- 12.462 Fundamentals of Transportation and Logistics

• **CATEGORY 3—Major and area of concentration, 15 credits (Five Courses) except for Accounting, 18 credits (Six Courses):**

The major, an organized series of related courses, provides limited specialized competence. This major, like a major in any other school in the University, is the student's exploration in depth and shows his ability to master an integrated curriculum. The available majors are listed below.

Students without clearly defined specialized interests major in General Business. All full-time students take the same courses for the first two years, at the end of which they can shift majors without loss of credits. Changing majors later than the beginning of the junior year can mean added courses.

The major must be officially selected (or confirmed) before registration for the first session of the Junior year. Forms must be acquired from and filed in the Office of Assistant Dean, Undergraduate Program.

• **CATEGORY 4—Electives, 9 credits (Three Courses):**

In consultation with a counselor, students choose electives from business or non-business courses. Superior students may use electives for the Integrated Bachelor's-Master's Program (see below). Many use electives for a second concentration closely related to their major, e.g., Accounting for Finance majors, Marketing for Transportation majors, etc. Many go beyond 9 credits by carrying a heavier than average session schedule. This both strengthens career preparation and increases career opportunities.

The Majors

GENERAL BUSINESS

This major, rather than providing specialization in one area, consists of fundamental courses from basic fields.

By using electives, students can supplement one or more areas with advanced study and increase both their depth of background and flexibility of qualifications for various kinds of careers.

ACCOUNTING

An integrated education for students preparing for the CPA examination or for careers in industrial accounting, governmental service, or related fields such as law or management. Courses provide both technical competence in accounting theory and procedures and an understanding of the significance of accounting information and its role in operational planning and control.

Students seeking the CPA should check specific requirements of their State and discuss programs with their adviser. *The Accounting Curriculum is registered in New York State.*

BUSINESS AND ECONOMICS

Satisfactory completion of this major enables graduates who qualify for admission to complete either the University's M.B.A. or M.A. in Economics in one, rather than two, years of full-time study or the equivalent in part-time study. By taking this economics major within the framework of the B.S. in B.A., students include in their curriculum an educational background of great advantage for business-oriented practice or teaching of economics.

COMPUTER SYSTEMS

Automatic data processing provides a field where interest in computers can be coupled with any specialized area of business to great personal advantage.

ECONOMICS AND BUSINESS (Joint Major) (*Undergraduate*)

Majors in Business and Economics take the following courses from the Economics Department:

19.300 and 301 Intermediate Economic Analysis, Price and Income (3-3)

19.303 Landmarks of Economic Theory (3)

19.306 Money and Banking (3)

19.308 The Economic Development of the United States (3)

For full course descriptions and prerequisites, consult the Department of Economics in the College of Arts and Sciences in this *Catalog*.

Other courses in Economics are specifically recommended in the various Programs of the School of Business Administration.

FINANCE

The *Financial Management* concentration provides more intensive knowledge of and ability to utilize the institutions, procedures, and strategies of financial management.

The concentration in *Investments* contributes to competence in careers as financial and investment analysts, investment advisers, securities brokers, and registered representatives.

With the cooperation of the American Institute of Banking, *Commercial Banking* offers the opportunity to combine work experience with the educational resources of both organized Banking and the Finance Program.

INDUSTRIAL RELATIONS, PERSONNEL, AND MANPOWER MANAGEMENT

For any organization to function effectively, its executives must be well qualified in managing human resources.

Personnel Management covers principles of recruitment, selection, training, supervision, motivation, compensation. Courses stress philosophy and rationale rather than mechanics and techniques.

Industrial Relations is concerned largely with union-management relations. Courses emphasize collective bargaining from the viewpoint of management's complex problems and in the context of total operations.

INTERNATIONAL BUSINESS

This pioneering and distinctive program provides understanding of the international ramifications which so greatly affect business, economics, and politics.

MARKETING

Marketing's critical role in profitable operations, its significance for economic growth, ever-sharpening competition between firms, industries and countries, and the subsequent emergence of a profession of marketing create a wide variety of challenging career opportunities for "creating" customers and improving the living standards of all people.

PRODUCTION (INDUSTRIAL) MANAGEMENT

Production functions are studied as individual and related manufacturing processes and as a total integrated operation in relation to the other major functional areas. The impact of technology on the production process is examined, evaluated, and projected. Production decision-making factors, internal and external to the firm, are emphasized.

PRE-LAW

This major provides a strong base and a competitive advantage for a successful legal career.

PUBLIC RELATIONS IN BUSINESS

Students electing this area of concentration at either the M.B.A. or Ph.D. level will take part of their course work in the Department of Communication in the College of Arts and Sciences. Program of study must be arranged in consultation with the Public Relations in Business Program Director.

REAL ESTATE

Washington is one of the world's greatest laboratories in real estate and construction and the School offers one of the country's most complete programs.

Sequences in Appraisal and Property Management are officially accepted toward professional designations.

STATISTICS

Statistical methods are increasingly used in managerial decisions. This major provides competence in both the quantitative tools and in the skills and backgrounds of the general executive who is the primary consumer of statistical analyses.

TRANSPORTATION, LOGISTICS, AND TRAFFIC MANAGEMENT

This program combines education in transportation with business administration and marketing management.

Washington is the center of government activities relating to all modes of transportation. Resource materials for study abound and transportation agencies and carrier associations provide opportunities for part-time employment while in school and full-time employment after graduation.

Course Sequence Sheet

A basic responsibility of each student is registering properly each semester. He must meet prerequisites and requirements for degree and major, avoid conflicts of required courses and meet other University requirements.

Each undergraduate receives a *Course Sequence Sheet*, an "ideal" semester by semester schedule which brings together in one place and coordinates University requirements governing all degrees, School, and major requirements. This is his major planning and scheduling tool.

Admission to the Undergraduate Program

See page 12 for specific details.

Submit application and credentials to Director of Admissions, The American University, Washington, D.C. 20016.

Application may be made for any session—Fall, Spring or Summer.

Advanced Standing for CPA's, Members of the Bar, A.I.B. Students

CPA's or members of the Bar may receive 30 credits transfer. Up to 16 credits may be awarded for satisfactorily completed American Institute of Banking courses.

High School Background

The School recommends as much English, History, Social Science, and Public Speaking as possible and three or four years of Mathematics and a Foreign Language. Extra-curricular activity in debating, writing, and on business staffs of publications and part-time and/or summer employment in business will be helpful.

Superior Students

Recognizing that students enter with different levels of ability and varying degrees of proficiency, the University has special programs whereby *superior students* substitute advanced for basic courses and/or enter with advanced standing (if sufficient, they may earn both B.S. in B.A. and M.B.A. in the time normal for the former alone).

ADVANCED ADMISSION—From junior year of high school.

WAIVER EXAMINATIONS—Electives in place of basic courses.

ADVANCED PLACEMENT—Placement in advanced courses.

ADVANCED STANDING—College credit for high school courses.

For details, see page 34.

Increasingly, the Master's degree is prerequisite to professional positions. To facilitate superior undergraduates, an integrated course of study begins with the junior year and leads to the M.B.A. A student approved by this program may—

a. Tentatively select in his junior year his elective M.B.A. comprehensive field and plan major and electives accordingly.

b. Apply toward M.B.A. credits earned satisfactorily in graduate level courses taken during senior year in excess of hours needed and not used to meet specific course requirements for B.S. in B.A.

c. Be advanced to candidacy for M.B.A. upon entering his year of graduate study, if his average is B or better in his major.

d. Complete all work for the M.B.A. in one year.

Superior junior college graduates admitted to the School may thus complete both B.S. in B.A. and M.B.A. in three years rather than four.

Graduate Degrees

Admission

See page 16.

Application may be made for any Fall, Spring or Summer semester. Note: the Admission Test for Graduate Study in Business scores must be provided.

If an applicant has missed the University deadline for admission to degree status, he should: (1) apply for admission to the College of Continuing Education; (2) be counselled by the School of Business Administration as well; and (3) apply for admission to degree status for the following session. No more than 12 credits of second year courses may be transferred from non-degree status.

The Admission Test for Graduate Study in Business

Used as an admissions criterion by the leading graduate schools of business administration, the Test is offered four times a year in various locations. Registration, via application form, should be received by Educational Testing Service no later than two weeks before date of Test for examinations in U.S. and its territories or Canada. For candidates tested in other countries, registration deadline is one month before Test.

The Bulletin of Information for Candidates is available from The Educational Testing Service, Box 966, Princeton, New Jersey 08540. The ATGSB is *not* designed to test specific knowledge in business administration. It seeks to measure *aptitude* for, not knowledge of, business administration by seeing whether candidates can understand and use words and numbers and reason effectively. Normal undergraduate education should provide sufficient general knowledge to deal adequately with test questions.

Applicants for Fall should take Test in February or April; and for Spring, July or November.

In unusual circumstances, applicants unable to take Test before registration may be permitted to enroll. If previous academic performance is sufficiently high, they may be admitted with good standing contingent upon earning a satisfactory score within 3 months following registration. Otherwise, they should apply for admission to the College of Continuing Education until they can present a satisfactory score as part of their credentials for admission to the School of Business.

Letters of recommendation and/or evidence of professional attainment may be submitted in support of M.B.A. applications. Ph.D. applicants must have letters of recommendation submitted from two of their former professors.

In exceptional cases, applicants not meeting these qualifications may be considered on the basis of *superior* scores on the Admission Test for Graduate Study in Business.

Master of Business Administration

The M.B.A. degree builds upon a common foundation: either an undergraduate business major or, by class performance or examination, demonstrated mastery of fundamental tools and concepts of First Year Basic Requirements courses. By completing these First Year courses, students who did not major in business receive a foundation for advanced study.

Course Requirements

Without Advanced Standing, two academic years of full-time study are required (54 credits or 18 courses). The length of part-time study depends upon number of courses carried per semester and registration in summers.

ADVANCED STANDING may be received for: (1) previous satisfactory completion of FIRST YEAR BASIC REQUIREMENTS courses or equivalents or by passing *Waiver Examinations**; and (2) transfer from other accredited graduate or law schools of up to 6 credits of appropriate SECOND YEAR ADVANCED REQUIREMENTS courses if at least "B" grades. Generally, undergraduate Business majors can complete the M.B.A. degree in 30-36 credits (10 to 12 courses).

FIRST YEAR BASIC REQUIREMENTS COURSES: A "core" of 24 credits (eight courses) that provides, despite differing undergraduate majors, common, balanced foundation of competence in primary "tool" areas prerequisite to advanced study. *All First Year Basic Requirements courses must be completed satisfactorily before advancement to candidacy.*

These courses are:

- 10.400 Use of Accounting Methods (3)
- 10.401 Legal Environment of Business (3)
- 69.400 Managerial Statistics (3)
- 10.442 (formerly 19.310) Introduction to Managerial Economics (3)
- 10.456 Process of Management (3)
- 10.457 Quantitative Methods in Decision Making (3) (may also require 10.057)
- 10.465 Business Finance I (3)
- 11.300 Marketing I (3)

Waiver Examinations

Waiver Examinations have been developed for students: (1) without formal education, but with strong career backgrounds and/or self-study in the areas of the First Year Basic Requirements courses; and (2) who have completed satisfactorily in previous study similar, but not necessarily equivalent, courses.

To be eligible for Waiver Examinations, applications must be filed in the M.B.A. or Ph.D. Office within 6 months following date of the first registration as a degree candidate. If application is approved, Waiver Examinations must be taken within one calendar year following that date of registration.

A student who registers for a First Year Basic Requirement course at The American University and does not receive at least a "C" grade, may not apply for a Waiver Examination, but must re-register for that course.

Required Graduate Study Registration

See page 32.

Continuous Study

Any degree candidate, full-time or part-time, who has not completed course requirements and who has been out of attendance for two consecutive sessions (excluding Summer), must meet all degree requirements prevailing when he returns. A degree candidate who does not register for classes or graduate study for one or more years and wishes to return will be considered as applying for new admission.

Transferability of Credits Taken at Military Institutions

Regionally accredited military institutions (e.g., U.S. Naval Post-Graduate School at Monterey) are treated as other regionally accredited institutions. Six graduate credits, where appropriate to student's program, may be transferred toward either M.B.A. or Ph.D. from the National War College, Industrial College of the Armed Forces, Army War College, Navy War College, Air War College, and Foreign Area Specialist Training Program (Soviet Union, Detachment "R" Oberammergau).

Credits may be transferred only for the full course in residence and for the three service colleges (Army, Navy, and Air), the senior course only, if a distinction is made between that course and others.

* 12 toward the Ph.D.

In addition, students, particularly from other countries, whose total academic backgrounds are not considered adequate, will be required to take 10.481 Principles of Production (3), and/or 10.491 Personnel and Manpower Management (3), and/or 10.458 Business Policy (3).

SECOND YEAR ADVANCED REQUIREMENTS courses: Minimum of 30 credits (10 courses) in "500" and above courses, with an overall average of at least "B" in American University courses, including at least "B" average in elective field, and 6 credits (two courses) of at least "B" in 10.756, 10.757, or 10.758. At least 24 credits (eight courses), including Seminars meeting non-thesis option, must be taken in residence.

MANAGEMENT: 10.642 Managerial Economics (3); 10.656 Design of Organizations (3); 10.657 Planning—Programming—Budgeting (3); 10.756, 10.757 Seminars in Policy Formation I and II (6); 10.758 Seminar in Human Relations I (3).

ELECTIVE FIELD: At least 12 credits (4 courses) in "500" or above courses, generally at least 6 credits (2 courses) in "600" or above courses including at least one Seminar.

Required Comprehensive Examination Fields

After completion or in last semester of completing all required courses candidates must take two comprehensive examinations:

10.001 Management (core field); and one elective field from the following list of fields (or other interdisciplinary field approved by the Director of the M.B.A. Program):

- 10.010 Accounting
- 10.030 Advertising
- 10.013 Banking and Financial Institution Management
- 10.014 Business Education
- 10.015 Business-Government Relations
- 10.037 Business Logistics
- 10.016 Business Statistics
- 10.033 Church Management
- 10.017 Financial Management (including Business and Corporation Finance)
- 10.019 Industrial (including Personnel) Psychology
- 10.20A Industrial Relations
- 10.021 Institutional Management (including Hospital Administration)
- 10.22A Insurance, Life
- 10.22B Insurance, Property and Casualty
- 10.023 International Business
- 10.024 Investment Analysis (including Investment Banking)
- 10.036 Land Planning and Use
- 10.035 Legal Aspects of Business **
- 10.002 Managerial (Business) Economics
- 10.025 Marketing
- 10.20B Personnel Management In Business
- 10.018 Production (Industrial) Management
- 10.027 Public Relations in Business
- 10.034 Purchasing (including Procurement and Materials Management)
- 10.028 Real Estate
- 10.029 Retailing
- 10.032 Transportation (including Traffic Management)
- 10.033 Urban Transportation

NOTE: Candidates interested in elective field from *Technology of Management* should consult the Director for the Center for Technology and Management.

To be eligible for the two Comprehensive Examinations, taken as a unit in a given semester, students must have completed satisfactorily all First Year Basic Requirements courses, been advanced to candidacy, have at least a "B" average in graduate studies, have approval of appropriate Program Directors, as well as the M.B.A. Director, and have completed or be in the final session of completing all required course credits.

Separate applications must be made for advancement to candidacy and for admission to Comprehensive Examinations. (Deadline for latter is announced in calendar of respective Fall, Spring or Summer *Schedule of Classes* publication.) Applications must be approved

** See page 57 for advanced standing for holders of the LL.B. degree enrolled in the M.B.A. Program.

by Director of M.B.A. Program, stamped by Office of Student Accounts who will forward them to the Graduate Studies Office.

A candidate who fails to pass both Comprehensive Examinations as a unit may request permission to retake 10.001 Management and the same or another elective Field (if adequately prepared for the latter). If he passed one examination with at least one grade of distinction, he may be excused from repeating that examination. He may be required to take additional course work to strengthen his background. *A candidate who fails twice 10.001 Management or who fails a second attempt at any other examination is automatically dismissed from the School.*

Advancement to Candidacy

Admission to graduate study does not automatically mean advancement to candidacy for the M.B.A. degree. Each is a separate step in the student's progress toward the degree.

At advancement, approval of the elective Comprehensive Field is sought and an appropriate form filed with the Director of the M.B.A. Program. Advanced standing for previous appropriate graduate study is officially granted at advancement.

Advancement to candidacy has *no connection with admission to the comprehensive examinations*. The candidate must apply for the latter (before the deadline dates—announced in the *Schedule of Classes* publication) by filing the proper application form, and paying the required fee.

Students may apply for advancement to candidacy when they have completed the first 12 credits of Second Year Advanced Requirements courses (with an average of "B" or better) and have completed satisfactorily all First Year Basic Requirements. This application *must* be made no later than the completion of 18 credits of Second Year courses. If at this time a student's average is less than "B", he may be dismissed from the University. He may also be dismissed if the grade average falls below the minimum requirement at any time thereafter.

Statute of Limitations

All M.B.A. degree requirements are expected to be completed within three years from the date of first enrollment in the degree program. If not completed within that period, the student must petition for re-admission if he wishes to continue.

Counseling

General inquiries and initial and general counseling are by the Director of the M.B.A. Program. Counseling for preparation for Comprehensive Examinations is available from the appropriate Program Director or his representative. Each student develops with his counselors an "M.B.A. Planning Record" which provides an overall schedule and indicates progress toward completing requirements.

MODEL M.B.A. SCHEDULE

For full-time students *without* advanced standing:

SESSION I (12-15 credits)

- 10.400 Use of Accounting Methods (3)
- 69.400 Managerial Statistics (3)
- 10.442 Introduction to Managerial Economics (3)
- 10.456 Process of Management (3)
- 10.401 Legal Environment of Business (3)

SESSION II (15 credits)

- 11.300 Marketing I (3)
- 10.457 Quantitative Methods in Decision Making (3)
- 10.465 Business Finance I (3)
- 10.401 Legal Environment of Business (3) *or, if taken in Session I, 10.642 Managerial Economics (3)*
- Course 1 in Elective Field (3)

SESSION III (12-15 credits)

- 10.756 Seminar in Policy Formulation I (3)
- 10.758 Seminar in Human Relations I (3)
- Course 2 in Elective Field (3)

Course 3 in Elective Field (3)

10.642 Managerial Economics (3) (if not completed in Session II)

NOTE: Application for Advancement to Candidacy must be made on the completion of 12-18 credits of Second Year courses.

SESSION IV (12 credits)

10.657 Planning-Programming-Budgeting (3)

10.757 Seminar in Policy Formulation II (3)

10.656 Design of Organizations (3)

Course 4 (Seminar) in Elective Field (3)

NOTE: Comprehensive Examinations (offered each Fall, Spring, and Summer) may be taken this Session by very well prepared candidates. Others should take them in the next Session, utilizing the time interval for thorough preparation.

Master of Science in Real Estate and Urban Development Planning

Admission

Admission requirements, including the required *Test for Admission to Graduate Study in Business*, are the same as for the M.B.A. program. See page 16.

First Year Courses

69.400 *Managerial Statistics* or one year of undergraduate statistics (such as 69.200 *Basic Statistics* and 69.300 *Business Statistics*)

10.400 *Use of Accounting Methods* or one year of undergraduate accounting, e.g., 10.306, 10.307

10.442 *Introduction to Managerial Economics* or one year of undergraduate economics (such as 19.100, *Introduction to Economics I*, and 19.101, *Introduction to Economics II*)

10.456 *Process of Management*

10.457 *Quantitative Methods in Decision Making*

10.578 *Real Estate Law* or 10.401, *Legal Environment of Business*, or one year of undergraduate Business Law (such as 10.201, *Business Law I*, and 10.302, *Business Law II*)

11.570 *Urban Development Systems* or approved substitute

11.584 *Mortgage Banking*

Second Year Courses

10.667 *Planning-Programming-Budgeting* (3)

10.758 *Seminar in Human Relations* (3)

11.579 *Home Building* (3), or 11.580, *Apartment Construction* (3), or 31.504 *Institute in Real Estate Appraisal II* (3)

11.683 *Real Estate Market Analysis* (3)

11.685 *Land Planning and Use* (3)

11.776 *Seminar in Real Estate Administration* (3)

11.778 *Seminar in Land Planning and Use* (3)

11.779 *Seminar in Housing and Urban Development* (3)

12.572 *Urban Transportation* (3) or 53.684, *Urban Planning* (3), or 53.681, *Metropolitan Growth Analysis* (3)

31.501 *Property Management II* (3) or 31.505, *Real Estate Appraisal I* (3)

Comprehensive Examination

One comprehensive examination is required.

Advanced Standing Toward M.B.A.

All M.S. courses satisfactorily completed and appropriate to the M.B.A. will provide Advanced Standing for holders of this M.S. admitted to the M.B.A.

Doctor of Philosophy in Business Administration and Doctor of Philosophy in Business Administration: Technology of Management

Admission

Admission is based on superior academic performance and personal qualities, generally including previous completion of a Master's degree. Admission to the Ph.D. is separate from admission to a Master's degree, whether the Master's degree is from The American University or elsewhere. Applicants for the Ph.D. must earn *satisfactory* scores on the Admission Test for Graduate Study in Business (applicants who previously earned such scores need not take the Test again). See also page 16.

Course and Seminar Requirements

Candidates for doctoral degrees are required to take a minimum of 66 credits (22 courses) in graduate courses and seminars (plus 6 credits of Dissertation Seminar) with at least a "B" average.

I. BASIC REQUIREMENTS COURSES: All first year basic requirements M.B.A. courses are required. Requirements may be met by previous satisfactory completion, by passing Waiver Examinations (see page 59), or by passing such courses as part of the Ph.D. Program.

II. TOOLS OF RESEARCH: Accounting and Statistics are required (unless a foreign language or mathematics is approved partially in lieu of statistics). Non-language tools may be satisfied by examination or by certification based on satisfactory completion of appropriate courses. Candidates must complete both Tools before advancement to candidacy.

III. MANAGEMENT:

- 10.656 Design of Organizations (3)
- 10.657 Planning-Programming-Budgeting (3)
- 10.756, 10.757 Seminars in Policy Formulation and Administration (6)
- 10.758 Seminar in Human Relations I (3)
- 10.760 Doctoral Seminar in Management Literature (3)
- 10.761 Seminar in Philosophy of Management

IV. MANAGERIAL (BUSINESS) ECONOMICS:

- 10.542 Foundations of Business Forecasting (3)
- 10.642 Managerial Economics (3)
- 10.643 Managerial Analysis (3)
- 10.742 Seminar in Managerial Analysis (3)
- 10.743 Doctoral Seminar in Managerial Analysis Literature (3)

V. DISSERTATION SEMINAR: (6)

VI. ELECTIVE COURSES: Balance of required credits in "500" and above courses, generally including at least two Seminars and, where offered, the Doctoral Literature Seminar in each elective field. At least 54 of the 66 hours must be in fields of the comprehensive examinations.

(Note: All the above and other appropriate courses satisfactorily completed for the M.B.A. may be applied to the Ph.D. requirements.)

Comprehensive Examination Fields

VII. REQUIRED COMPREHENSIVE EXAMINATIONS:

- 11.001 Management
- 11.002 Managerial (Business) Economics, and two elective fields (one of which may be outside of Business Administration with approval of Director of Doctoral Programs)

VIII. ELECTIVE COMPREHENSIVES:

- 11.030 Accounting
- 11.032 Business-Government Relations
- 11.034 Business Finance
- 11.036 Industrial Relations & Personnel Management

- 11.038 International Business
- 11.039 Land Planning and Use
- 11.040 Marketing
- 11.042 Production (Industrial) Management
- 11.044 Public Relations in Business
- 11.046 Real Estate
- 11.048 Transportation & Physical Distribution
- 11.050 Computer Systems
- 11.052 Operations Research
- 11.054 Research & Development Management
- 11.056 Management Information Systems
- 11.058 Systems for Scientific & Technical Information
- 11.065 Church Management

Note: Doctoral candidates wishing to earn the degree of *Ph.D. in Business Administration: Technology of Management*, select two fields from 11.050, 11.052, 11.054, 11.056, 11.058. See page 67 for further information.

Separate applications must be made for advancement and for admission to Comprehensives. Applications for latter must be signed by Associate Dean, Ph.D. Program, stamped by Office of Student Accounts which forwards them to the office of Dean of Graduate Studies, not later than final dates listed in the respective Fall or Spring *Schedule of Classes*.

Dissertation Requirements

Candidates for doctoral degrees are required to defend successfully at an oral examination a dissertation approved by the Dissertation Advisory Committee as reflecting an original contribution to the established body of knowledge in the selected field.

Advancement to Candidacy

Admission to a doctoral degree program does not automatically mean advancement to candidacy for a doctoral degree. Each is a separate step, and advancement is a discretionary act; various requirements may be set up in the best judgment of the School.

The student proposes his elective comprehensive fields in filing his application for advancement to candidacy.

Doctoral degree students who have completed 30 credits of graduate work, including the Master's program if this degree has been secured, and at least 15 additional credits in residence at the University, may apply for advancement to candidacy if their grade average in all graduate work taken at the University is at least "B". Application *must* be made not later than the end of the semester in which 18 credits of graduate work will have been completed in residence at the University, subsequent to admission to the doctoral program. If a student is ineligible for advancement at that time, his work at the University may be terminated. It may also be terminated if the grade average falls below the minimum requirement at any time thereafter.

If the Master's degree has been received at the University, a doctoral degree student may apply for advancement to candidacy after completing 12 graduate credits beyond the Master's degree but *must* apply no later than the end of the semester in which 18 credits of graduate work will have been completed beyond the Master's degree.

Transfer Credit

Transfer credit for prior work taken at other institutions is usually granted at the time of advancement to candidacy. In order to be transferred, the credits earned elsewhere must be graduate level courses taken after the student received the Bachelor's degree, and they must be judged appropriate to the student's degree program.

Statute of Limitations

All degree requirements are expected to be completed within five years from date of first registration as a doctoral student (if the student entered with a Master's degree). If not completed, the student must petition for readmission if he wishes to continue.

Student Guide

A detailed Guide has been published by the Doctoral Association of the School of Business Administration.

Special Programs

Combined Business-Law Degrees Programs

Practicing lawyers and law schools increasingly recommend business administration and accounting as advantageous backgrounds or supplements for legal studies. The lawyer with a business or accounting background can more effectively resolve the problems of businessmen-clients, is far better qualified for such specializations as corporation or tax law, and is better equipped to move to positions of managerial responsibility.

M.B.A.-LL.B.: Work beyond the first year at accredited law schools may be given graduate credit if both are relevant to a degree program and earned with at least "B" grades. University residence and specific course requirements must be fully met. Qualified graduates of the University's Washington College of Law receive advanced standing of up to 12 credits, toward the 30, of courses at the "500" and higher level. Graduates of other accredited law schools transfer 6 credits of "B" or better toward the 30. Both also receive credit for 10.401 Legal Environment of Business. Either *Legal Aspects of Business* or *Business-Government Relations* generally serves as the elective Comprehensive Examination under this special Program.

Attorneys thus supplement legal backgrounds with a thorough education in business fundamentals (M.B.A. First Year Courses), in advanced study in Management (the area of administration), and in the interrelations of law and business.

Preparation For Careers in the Foreign Service

To meet the increasing need for Foreign Service Officers with a thorough education in business, the Junior Foreign Service Officer Examination now includes in Part 2 of the General Background Test, *Option B: Management and Business Administration*. This calls for an understanding of the more advanced concepts of executive management, business administration, foreign commerce, and international marketing.

The School of Business recommends as effective educational preparation the B.S. in B.A., with a major in International Business, and as electives a foreign language. Students preferring to major in Finance, Marketing, or Industrial Relations and Personnel Management should use electives for International Business and a foreign language.

The M.B.A. provides a higher-level education in executive management. International Business or other relevant fields may be used as the elective comprehensive examination.

Career Opportunities in the Bureau of International Commerce

International Business, Marketing, and Finance, with electives selected as in the Foreign Service Officer examination (see above), are recommended for educational preparation for appointments as Business or Trade Specialists. The Bureau uses the Federal Service Entrance Examination (FSEE) to fill most initial appointments. For further information, write Bureau's Personnel Division (Washington, D.C. 20230).

Certificate Programs

EXECUTIVE CERTIFICATE PROGRAM—This program is for mature men and women with substantial executive experience who have not had an opportunity to earn a Bachelor's degree, do not meet requirements for direct admission to M.B.A., and have not had more than 30 hours of previous college study. Application is by letter (accompanied by complete resume of education and experience). Admission is highly selective, limited to those: (a) at least 35 years old; (b) with a minimum of five years of executive experience; (c) recommended by head of business firm or government agency or commanding officer, if in military; (d) earning satisfactory scores on Admission Test for Graduate Study in Business (see page 58); and (e) with experience equivalent to an undergraduate business major and which indicates ability to complete satisfactorily advanced study.

Executive Certificates will be awarded in areas of M.B.A. Comprehensive Fields (see page 60), where applicant completes with at least "B" average 12 credits in M.B.A. First Year Basic Requirements courses (unless waived on basis of examinations), 12 credits in area of specialization, and 6 credits from the Management area. An applicant may receive more than one *Executive Certificate* by completing with at least "B" average an additional 6 credits of First Year or other prerequisites (unless waived by examination), 3 credits from Management, and 12 credits in additional area of specialization for each Certificate beyond the first. (Where prerequisites are waived, appropriate advanced courses may be added to earn total

required number of hours. Up to six credits of basic courses in area of specialization when prerequisite to registration for advanced courses may be substituted for M.B.A. First Year courses.) Minimum residence requirement is 18 credits.

Students may *not* be concurrently enrolled in a degree program nor is the Executive Certificate Program open to those already holding a Bachelor's degree.

CERTIFICATE IN ACCOUNTING—This certificate is basically for holders of Bachelor's degree in a field other than accounting who wish to become professional accountants and qualify for the C.P.A. Examination. Appropriate courses satisfactorily completed in the undergraduate program or in previous study may be counted toward requirements, subject to minimum residence of 18 credits. (Credits taken toward undergraduate and/or graduate degrees at The American University count toward this residence requirement.)

Students admitted to M.B.A. or Ph.D. in Business Administration at The American University may also receive advanced standing for appropriate courses satisfactorily completed in this program, thereby meeting a significant portion of the requirements for those degrees. Students may be concurrently enrolled in a degree program.

The Certificate in Accounting is awarded upon completion, with at least "C" grades, of courses in Accounting, Taxation, and Business Law prescribed by Director of the Accounting Program. Courses will be based on previous education and background and requirements of the C.P.A. Examination. In all cases, a minimum of 36 credits (including transfer credits) will be required.

PROFESSIONAL CERTIFICATE IN CHURCH MANAGEMENT—This certificate is awarded on successful completion of the following intensive program of academic study, related work experience, and applied research. Classes are scheduled to permit studies at a high level of scholastic achievement without extensive leave from regular duties. Graduates of this program are members of The American University Alumni Association.

Two patterns of learning experiences, the "Basic Requirements Studies" and the "Concentration Area," together totalling 48-60 credits (semester hours), are required of all candidates. For further details, contact the Director, Church Management Program. A separate brochure is available.

CERTIFICATE IN REAL ESTATE—Growing complexities of operations and strong pressures for raising standards of practice to professional levels place an ever increasing premium upon additional formal education for practitioners. The Certificate Program goes beyond the taking of individual courses. It provides an integrated "package" which attests to successful completion of an educational foundation for professional competence. A brochure is available from the Director, Real Estate and Urban Development Planning Program.

In the area of Technology of Management, Certificate Programs are offered in COMPUTER SYSTEMS, OPERATIONS RESEARCH, MANAGEMENT INFORMATION SYSTEMS, and RESEARCH AND DEVELOPMENT MANAGEMENT. Almost all credits count toward Business Administration degrees for those admitted to degree status. A brochure is available upon request.

Institutes

The School periodically offers specialized professional Institutes, primarily for practicing businessmen. Planned with leading practitioners and, generally, appropriate trade and professional associations, they are part of the School's "Continuing Education" and offer short, intensive instruction on a time schedule permitting leave from regular duties. They are an important means of strengthening professional qualifications and of counteracting executive "obsolescence." See **Institutes** under course listings.

Technology and Management

The Center for Technology and Administration provides a University-wide vehicle for the study of the effect of the emerging technological revolution on the administrative process. This predominantly graduate program includes Computer Systems, Operations Research, Management Information Systems, Scientific and Technical Information Systems, and Research and Development Management as fields of elective study available to students in the School of Business Administration as part of their degree programs.

B.S. in B.A.

For a major in COMPUTER SYSTEMS. See below.

M.B.A.

To combine MANAGEMENT (General Administration) and TECHNOLOGY OF MANAGEMENT, elect as comprehensive examination field 55.063, 55.064, 55.066, or 55.067. See pages 149.

Ph.D. in Technology of Management

To earn this degree which combines MANAGEMENT (General Administration), MANAGERIAL (BUSINESS) ECONOMICS, candidates select two comprehensive examination fields from 11.050-11.058 sequence. See page 63.

Available Fields

COMPUTER SYSTEMS—Program is designed to give a student a grasp of the capabilities and limitations of this management tool, with emphasis on a balanced academic program of concentration on the programming, design, and application of the instrument.

OPERATIONS RESEARCH—Curriculum features familiarity of language, concepts and tools of "Management Sciences" in order to know where, when, how and to what advantage they can be applied.

SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS—Functions of the special library and technical information center are treated in detail, including such procedures as technical writing and editing, computerized techniques of publishing, abstracting, indexing, search strategy, etc. Advanced seminars on special topics, such as library automation, thesaurus construction, and data centers round out the curricular offerings.

MANAGEMENT INFORMATION SYSTEMS—For academic and professional specialization in those systems which: (a) perform the administrative processes of business or governmental action; (b) alter and manipulate information within the storage subsystem to produce information and analysis for managerial planning, decision, and control; (c) produce the managerial decision by interrelation of information and pre-determined criteria; or (d) execute such decision by pre-programmed initiation, performance, and control of the operational action involved.

RESEARCH AND DEVELOPMENT MANAGEMENT—For academic and professional specialization in the formulation of research and development programs and the directing, control, and evaluation of their execution. This program is especially designed to develop initially or further the professional competence of those people who are or expect to be responsibly concerned with the management of research and development projects.

NOTE: For course descriptions, see TECHNOLOGY AND ADMINISTRATION Curriculum.

Academic Regulations, School of Business

See also pages 23 and 29 and following for University Regulations which govern all students.

Fulfillment of Academic Requirements

The student's primary obligation is to pursue conscientiously his academic objective and to complete as effectively as possible his academic assignments.

Professional education calls for long hours of hard work, mastery of subject matter, and ability to use it in specific situations; disciplined, inquiring, and observing minds; and independent research and analysis. Studies must therefore receive the highest priority of time and effort—they represent probably the most important personal and professional investment the student can make.

Students must supplement class work by doing considerable outside reading, written assignments, and study. Each student must carefully schedule his time so as to draw maximum profit from each course as well as from the curriculum as an integrated whole. To pursue a special interest or ability in one or a few courses at the cost of only minimum outside work in others will reduce the benefits of a carefully coordinated program and weaken the student's educational foundation and career preparation. Further, while extra-

curricular activities and part-time employment have many educational benefits for business students, they must remain secondary to academic studies.

Meeting Degree Requirements

While a large portion of faculty time is devoted to assisting the student to make proper program and career choices, the function of counselors is to help individuals help themselves. Selection of a major and choice of courses are among the most important decisions that each student makes during his university career. They cannot properly be delegated to anyone else. EACH STUDENT IS HELD RESPONSIBLE FOR THE PLANNING AND PURSUIT OF HIS EDUCATIONAL PROGRAM AND FOR MEETING DEGREE REQUIREMENTS. It is his responsibility to understand fully, and to comply with, all University and School regulations. Course sequence sheets for undergraduates M.B.A. Planning Records and Doctoral Student Guide are indispensable tools for doing this effectively.

Absences

Students are expected to practice the business principle that regular and punctual attendance at all classes is a primary obligation and that absences shall be only those absolutely necessary. They must still be justified to instructors with the student still responsible, even if excused, for making up and mastering work he missed.

Veterans and other students studying at government expense may be subject to the loss of educational benefits for excessive absences.

Use of Correct English

A student whose written or spoken English is unsatisfactory in any course may be assigned supplementary work, without academic credit, or required to enroll for additional English courses.

Academic Dismissal

Undergraduates must maintain a 1.00 cumulative index (C average). Each academic record is evaluated at the end of each year of full-time study (or equivalent for part-time study). Those who at any time, however, do not meet minimum grade requirements may be dismissed at the School's discretion.

Graduate students must maintain a minimum 2.00 cumulative index (B average) in all graduate courses. Those who complete 18 graduate credits without the required index, or who drop below at any time thereafter, may be dismissed.

Students whose averages fall below good standing have the responsibility of taking the initiative in discussing their problems with faculty advisers and instructors. They will generally find it desirable to reduce their course load to permit more intensive concentration. Since students know their own averages, they should not delay taking remedial action until they receive formal warnings which are not required before dismissal.

Once dismissed, undergraduates must wait a year before they can apply for re-admission.

Students already enrolled in Summer Session at the University will generally be given until the end of the Session before official action is taken.

Academic Probation

A freshman who fails to achieve a 1.00 index (C average) during his first two semesters (24-30 credit hours), but whose cumulative index is .750 or above, may be placed on academic probation for his second year at the discretion of the Assistant Dean, Undergraduate Program.

Freshmen should repeat any failed courses in the next semester.

M.B.A. students who fall below the minimum "B" average required for good standing, but who show sufficient promise of improvement, may be placed on academic probation rather than dismissed. In making this decision, the Assistant Dean, M.B.A. Program, may require additional course preparation.

HONORS

Dean's Honor List

Undergraduates carrying a course load of 15 or more credits a semester are placed on the Dean's Honor List for each semester in which they earn an average of 2.5 (B+) or better. They are also guests of the School Faculty at a luncheon given each session to honor their achievement.

Honors Awards

Each year, faculty and students join to honor students being recognized for excellence in studies and in campus activities. The President of the University generally presides at this Honors Convocation. In addition, the School makes a number of other Honors Awards.

Honors Study

The School is currently developing an Honors Program for the Junior and Senior Years for superior undergraduates.

M.B.A. Honors

The M.B.A. is conferred *cum laude* for a graduate course index in residence of 2.7 or higher and at least two "Distinction" grades on Comprehensive Examinations; *magna cum laude* for 2.8 or higher and at least three "Distinctions"; and *summa cum laude* for 2.9 or higher and four "Distinctions" (3.00 = A).

Undergraduate Scholarships

See page 21 for information, credentials, final application dates. *School of Business Administration students may apply for both University and School scholarships; they are not restricted to the latter.*

Subject to total lending capacity no qualified student need be deprived of the opportunity to earn his degree in the School.

Transfer Student Eligibility

Transfer students other than junior college graduates are not eligible for scholarships during their first year, but are eligible for consideration the second year if their academic records meet required standards.

General Financial Information

•Send applications for *University Awards* to Director of Financial Aid for Undergraduate Scholarships or to Assistant Dean for Administration, School of Business Administration, for Graduate Fellowships and Scholarships. Brochures are available.

•Applications for *School of Business Administration Awards* should be sent to Assistant Dean for Administration, School of Business Administration.

Note that a great many scholarships, awards and other financial aids are available to Business majors. Students are urged to contact the Dean for further information and brochures.

•All School Awards may be supplemented by limited loans.

•As long as funds remain available, Fellowships and Scholarships may be renewed on the basis of successful academic performance.

Courses

Prerequisites

Many courses call for a previous minimum background of knowledge, as indicated by courses cited in individual descriptions as *prerequisites*. Titles are those of The American University courses; equivalent courses satisfactorily completed at other accredited institutions also meet prerequisite requirements for transfer credit.

Administrative officers may sometimes waive prerequisites on the basis of experience and professional achievement. Where done, the student should secure the syllabus of the prerequisite course and complete the readings on his own. This will minimize the problem of gaps and out-of-date information.

Prerequisites mean the instructor will not use class time to go back and teach the material of the preliminary courses. Students are held responsible for entering the class already possessing the competence called for. *Thus, prerequisites warn students of the knowledge they are to bring with them in order to meet the expected standards of performance. Failure to possess this background can endanger the student's good standing and his ability to continue in the School. Therefore, students may be required to drop the course in question and register for the prerequisite course or courses instead.*

Centers

International Business

The University through the School of Business Administration has established a *Center for International Business* to provide the necessary background for: (1) Americans seeking careers at home and/or abroad, in the growing number of firms seeking foreign business; in the Foreign Service; and in other governmental and international agencies where public services are closely associated with business abroad; and (2) students from other countries seeking proficiency in business with emphasis on educational preparation for developing business operations for foreign or domestic firms in their own countries and for their governments.

Advanced programs are also being planned for those already in international business who wish to strengthen backgrounds and increase competence in this complex area.

International Business Research Laboratory

A unique facility for research established by a grant from the late Mrs. Alan M. Scaife, the *International Business Research Laboratory* comprises business documents and artifacts organized to answer practical business questions, with information made readily available by modern data-handling technology. Equipment and information are being contributed by individual donors, firms, and governments. Additional contributions are welcomed to increase the scope and usefulness of the Laboratory.

American and foreign company executives and government officials as well as students are welcome to utilize the Laboratory.

Technology and Administration

The Center for Technology and Administration, established in the School of Government and Public Administration in 1958 and made a joint instrumentality of that School and the School of Business Administration in 1964, now administers curricula and research in *The Technology of Management* on a University-wide basis. See *Technology and Management*.

Transportation and Logistics Research

Increased need for and growing recognition of the value of research led the School to establish a *Center for Transportation and Logistics Research* which conducts research projects on a contract basis in transportation, traffic management, physical distribution, and business logistics.

The Center seeks additional funds for research scholarships for graduate students and a reference service for visiting scholars. Foundations and individuals impressed by the many unique advantages arising from the School's leadership and pioneering in Transportation education and the abundant and largely unexploited research resources of the nation's capital have made possible establishment of the Center.

Church Management

An extensive program of education for leadership in obtaining and using financial, physical, and human resources for religious and related non-profit organizations is conducted by the Center for Church Management. The American University is the nation's only institution of higher education with a comprehensive program of graduate studies in this field.

This unique Center exists for a three-fold purpose of (1) educating men and women for effective stewardship of church management responsibilities, (2) making available an educational basis for strengthening the role of pastors as chief administrators, and (3) offering advanced education for religious career service as professional directors and ministers of management.

Program objectives are pursued through credit courses, non-credit Institutes, faculty-supervised internships, field studies, professional consultation, and publication services.

Wesley Theological Seminary students may take Church Management courses for which they are qualified and which are appropriate to their degree programs, without additional cost, subject to approval of the student's faculty adviser and the Director, Center for Church Management.

Admission is available to members of all religious faiths and denominations and to both non-degree and degree students. Contact the Director, Church Management Program for further information.

NATHAN A. BAILY ANNUAL LECTURE IN CHURCH MANAGEMENT—Another innovation in its field, this Lectureship was launched in November 1966. Started by an initial gift from James E. McKinney, business manager of the Arlington, Va., Methodist Church, it, at Mr. McKinney's request, was established in the name of and in honor of Dean Nathan A. Baily. The Lectures as delivered, or in expanded form, are to be published by arrangement with the Center for Church Management.

Homer Hoyt Institute

A non-profit organization conducting research and related activities in urban growth and development, real estate economics, and land planning and use, HHI serves as the research arm of the Real Estate and Urban Development Planning Program. Its services are available to private firms and organizations and to governmental agencies. Chairman of the Board of Directors of the Institute is Dr. Homer Hoyt, noted land planner, housing and real estate economist, and author. Graduate assistantships are available through the Institute.

Washington Conference on Business-Government Relations

This annual Conference brings together in the audience and on the rostrum key executives from business and government to help determine jointly the responsibilities of the public and private sectors in maximizing their contributions to a healthy economy. It provides a unique, non-political forum for business to tell its story; to discuss problems with government officials; to acquaint government people with how business actually operates; and for government to explore with business its concepts of regulation and its appropriate activities.

The Tenth Annual Conference will be held March 23, 24, 1970. For program and further details, write Director, Washington Conference on Business-Government Relations, The American University, Washington, D.C. 20016.

Study of Private Enterprise

As an expansion of the Business-Government Relations Program, this Center studies the changing roles of the private and the public sectors in our society with particular concern for the proper role of each in the social, political and economic problem areas. It consists of five divisions: A Teaching Division responsible for M.B.A. and Ph.D. study in Business-Government Relations and Public Relations in Business; a Research Division to develop and conduct research into the changing role of private enterprise; a Publications Division; an Executive Development Division; and a Special Projects Division.

The Center works closely with business and government leaders throughout the country both in curriculum development and in research projects.

Lectures in Business-Government Relations

Made possible through a grant from the Hill and Knowlton Company, these lectures present outstanding government leaders, business executives, and academic scholars. They explore the main problem areas in business-government relations and offer guidance in improving them. The lectures are published in book form.

Corporate Executive-in-Residence

Contributions from several American corporations have enabled the Business-Government Relations Program to establish a Corporate Executive in Residence program. Each semester a different executive, active or retired with outstanding experience in one of the areas of business-government relations—administrative law, economics, public affairs, public relations—is brought to Campus to counsel students, lecture to classes, lead discussions, and assist the Program Director in planning future academic developments. The first such Executive, in Spring 1968, was Mr. Harold Brayman, for twenty-one years Director of Public Relations for the du Pont Company, author of *Corporate Management in a World of Politics*, and one of the "Deans" of the Public Relations field. The second, in Spring 1969, was Dr. Robert Haakenson, Associate Director of Public Relations, Smith Kline and French Laboratories.

Special Management Development Programs

In addition to the above Institutes, the School offers specially designed programs on a contractual basis with government agencies, business firms, and associations.

Many organizations use the School's extensive course offerings for "custom tailored" management development programs. Selected executives being groomed for promotion are given leave for a semester to study full-time. Metropolitan Washington firms may utilize evening and late afternoon classes and thereby not need to provide time away from the job.

10.456 Principles of Management

10.457 Business Policy

10.400 Use of Accounting Methods

10.201 Business Law I

10.491 Personnel and Manpower Management have been found particularly useful as a foundation for Supervisor and Middle Management programs.

Chemistry

Correspondence Directory: LEO SCHUBERT, *Chairman*

Fields of Study

General Chemistry, Biochemistry, Organic Chemistry, Inorganic and Nuclear Chemistry, Physical Chemistry, Analytical Chemistry.

Undergraduate Degree

Bachelor of Science

University Requirements

Note: Science and Mathematics are normally satisfied by major and related requirements. Consult department. See also page 23.

Language Requirement

The Department requires that one language be taken through the intermediate level. The number of hours required varies according to the students' prior preparation in language and the courses selected at the University.

Required Language: German or Russian.

Departmental Requirements

MAJOR COURSES (43-52 hours)

15.110 and 15.111 General Chemistry I and II (8) or 15.200 Chemical Principles (4)

15.210 Qualitative Inorganic Analysis (3)

15.211 Qualitative Inorganic Analysis Laboratory (1)

15.310, 15.311, 15.320, 15.321 Organic Chemistry I and II (10)

15.350 and 15.351 Quantitative Analysis (5)

15.400 and 15.401 Physical Chemistry I and II (8)

15.460 and 15.461 Instrumental Quantitative Analysis (5)

15.550 Advanced Inorganic Chemistry I (3)

15.222 Qualitative Organic Analysis (3) or 15.560 and 15.561 Biochemistry I and II (8)

RELATED COURSES (16-18 hours)

51.220-51.221 Fundamentals of General Physics I and II (8)

51.222-51.223 General Physics Laboratory I and II (2)

TOOL COURSES (14 hours)

41.110 and 41.111 Fundamentals of Mathematics I and II (6)

41.222 and 41.223 Differential and Integral Calculus I and II (8)

Electives

To complete minimum of 120 hours plus non-credit physical education. The student is urged to consider 55.533 Computer Programming as an elective.

Other Undergraduate Degrees

See page 109 for information concerning requirements for the Bachelor of Science with major in distributed sciences.

Graduate Degrees
Master of Science

Admission Requirements

A B.S. in chemistry with a 1.7 cumulative index in chemistry from an accredited college and approval of The American University Chemistry Department Faculty.
All students must take four placement examinations in the several fields of chemistry on a published date shortly before general registration. Any placement examination failed must be retaken and passed. See also page 16.

Course Requirements

A minimum of 30 hours of approved graduate work, including 15.797 Master's Thesis Seminar (6) and 15.700 Seminar in Chemistry (1). Before this degree is awarded, the student must have completed:

- (1) 15.600 and 15.601 Advanced Physical Chemistry I, II (6) or 15.520 and 15.521 Advanced Organic Chemistry I, II (6),
- (2) 15.551 Topics in Inorganic Chemistry (3) or 15.560 and 15.561 Biochemistry (6).

The entire course of study must constitute a unified program approved by the student's advisor and the Chairman of the Department. Before the M.S. is awarded the student is expected to have completed either in Graduate Study or in an undergraduate program:

- 15.550 Advanced Inorganic Chemistry (3) and
- 15.522 Qualitative Organic Analysis (3)

Advancement to Candidacy

The student is expected to file for "Advancement to Candidacy" upon completion of 12 graduate credits.

Cumulative Examinations

Cumulative examinations will be administered by the department. (See section in the Doctoral Program).

A minimum of three points must be accumulated for successful completion of this examination requirement.

If three points are not accumulated after three examinations, the candidate is required to take additional examinations. A student is considered to have met the cumulative examination requirement if he amasses the following points:

Exams	Points
3	3
4	5
5	7
6	9

A student is disqualified if after the first three examinations he has not accumulated points as follows:

Exams	Points
3	1
4	3
5	5
6	7

If a student proceeds into the doctoral program, his record on cumulative examinations may be applied to his doctoral examination requirements upon approval of the Chemistry Department Staff.

Thesis Option

The student must present a thesis based on laboratory or theoretical research. The thesis must be of publishable quality. The student choosing the thesis option must defend his thesis successfully before his committee.

Non-Thesis Option

The student must present a scholarly paper based on a critical review of the literature. The paper must be of publishable quality. To demonstrate the student's ability to carry on original and independent research, the student choosing the non-thesis option must submit two avenues of investigation for research and defend these, as well as his paper, successfully before this committee.

Oral Examination

An oral defense of the thesis is required. Each student must defend successfully his research work or research ideas (non-thesis option) and his thesis before his committee. The oral is open to the public.

Tool of Research

The student is required to pass an examination or its equivalent in one of the following tools of research:

- Russian
- German
- French
- Computer Programming
- Statistics

Other Graduate Degrees

See page 110 for information concerning requirements for the Master of Science in Science Teaching.

In addition, M.S. in Chemistry (Information Science) is available through this Department in cooperation with the Scientific and Technical Information Systems Program of the Center for Technology and Administration.

Cumulative Examination Fields

- 15.001 Biochemistry
 - 15.002 Organic Chemistry
 - 15.003 Inorganic and Nuclear Chemistry
 - 15.004 Physical Chemistry
 - 15.005 Analytical Chemistry
- (See description under Ph.D. following.)

Doctor of Philosophy

Admission Requirements

Either—

1. A 2.0 Cumulative Index in Chemistry from an A.C.S. accredited college and an acceptable grade on the Graduate Record Examination, or
2. An M.S. or M.A. in Chemistry and approval by The American University Chemistry Department Staff.

All students admitted directly from a bachelor's program must take four Placement Examinations on a published date approximately one week before general registration. Students admitted with an M.S. need not take Placement Examinations.

Course Requirements

Approximately 50 hours of course credits with the remainder in 15.799, "Doctoral Dissertation Seminar" and 15.700, "Seminar in Chemistry" to total 72 credits.

Advancement to Candidacy

The student admitted directly from a bachelor's program is expected to file for "Advancement to Candidacy" upon completion of 18 credits. The student admitted from another university with a Master of Science degree is expected to file for "Advancement to Candidacy" upon completing nine semester hours.

Cumulative Examinations

Cumulative examinations will be administered by the Department. Each field in Chemistry will schedule four such examinations each year. A minimum of six cumulative examinations must be taken. Of these, four must be in the major field and two in a minor field. A minimum of fourteen points should be accumulated for successful completion of these examination requirements.

If 14 points are not accumulated after six examinations, the candidate is required to take additional examinations. A student is considered to have met the cumulative examination requirements if he amasses the following points:

<i>Exams</i>	<i>Points</i>
6	14
7	15
8	17
9	19
10	21

A student is disqualified if at the end of the first six examinations he has not accumulated points as follows:

<i>Exams</i>	<i>Points</i>
7	8
8	11
9	14
10	17

Points are assigned as follows:

Excellent	4 points
Pass	3
Bare Pass	1
Fail	0

The fields for the cumulative examinations are to be selected from:

- 15.001 Biochemistry
- 15.002 Organic Chemistry
- 15.003 Inorganic and Nuclear Chemistry
- 15.004 Physical Chemistry
- 15.005 Analytical Chemistry

Dissertation

The student is expected to have selected his research preceptor during or before his second year. The research should demand approximately one year of full-time effort.

Oral Examination

An oral defense of dissertation will be required. During this examination, the student must present at least one original research idea. He is expected to defend his research idea and develop a plan for pursuing it.

Should the research preceptor deem it appropriate, a manuscript suitable for publication in a journal will be required.

Tools of Research

The student is required to pass examinations or their equivalent in two of the five following tools of research:

- Russian
- German
- French
- Computer Programming
- Statistics

The student is required to maintain continuous registration. See the section in this Catalog which refers to the "Required Graduate Study," page 32.

Communication

Correspondence Directory: ROBERT O. BLANCHARD, *Chairman*

Fields of Study

Newspaper and magazine journalism, broadcast journalism, broadcast film, public relations, international communication.

University Requirements

See page 23.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation and the courses selected at the University.

Department Requirements

Major Courses: 30 hours.

Core Courses: 17.100 Introduction to Mass Communication (3 hours) and 17.101 Techniques of Mass Communication (3 hours).

Professional Sequences: After successful completion of core courses, the student selects one of the following sequences:

NEWSPAPER JOURNALISM:

17.320 Reporting I (3 hours)

17.524 Reporting II (3 hours)

17.325 Feature Article Writing (3 hours)

17.322 Editorial Policies and Methods I (3 hours)

17.520 Editorial Policies and Methods II (3 hours)

Departmental selections (9 hours)

MAGAZINE JOURNALISM:

17.320 Reporting I (3 hours)

17.325 Feature Article Writing (3 hours)

17.342 Magazine Journalism (3 hours)

17.343 Photography (3 hours)

17.532 Publication Layout and Design (3 hours)

Departmental selections (9 hours)

BROADCAST JOURNALISM:

17.333 Fundamentals of Radio-TV Film (3 hours)

17.320 Reporting I (3 hours)

17.583 Film Production and Direction (3 hours)

17.385 Broadcast Journalism I (3 hours)

17.528 Broadcast Journalism II (3 hours)

Departmental selections (9 hours)

BROADCASTING-FILM:

17.333 Fundamentals of Radio-TV Film (3 hours)

17.381 Development of Broadcasting-Film (3 hours)

Two of the following:

17.583 Film Production and Direction (3 hours)

17.584 Television Production and Direction (3 hours)

17.585 Radio Production and Programming (3 hours)

Departmental selections (12 hours)

Departmental selections are to be made with adviser's consent from among listed undergraduate and some advanced Communication courses. If desired courses are not available otherwise, individual study or research projects may be arranged.

Related Courses (12 hours)

Twelve hours or more in one area of humanities or social or natural science, 300-level or above, is required. The minor field is subject to approval of the Department Chairman or faculty adviser. Each student is directed toward a broad liberal arts background with one strong minor and is urged to seek the equivalent of a second major.

Electives

To complete a minimum of 120 hours.

Tools

Typing ability is required of all majors.

Most students are expected to gain practical communication experience through Department of Communication on or off-campus internships, work-study, or summer employment. After approval of adviser, see Department Chairman for placement.

Graduate Degree

Master of Arts in Communication

Admission Requirements

A minimum undergraduate cumulative index of 1.5 in overall study and 1.75 in the major index are required for admission (using the 3.00-point scale). Previous communication academic or professional experience is not required. However, evidence of professional commitment and direction, related to one of the graduate sequences, is required of all applicants. Those without previous experience may be asked to schedule an interview with the faculty before admission. (For prerequisites, see "Other Requirements" below.)

In general, admission is for the Fall Semester. Entry into the graduate program Spring or Summer session, while possible in some cases, will make for scheduling and timetable difficulties.

Washington-area residents, full- or part-time employed, are required to be interviewed by and receive approval of the Director of Communication Career Development, Department of Communication, before applying. Part-time students will not be admitted unless they can attend required courses during the day. A special evening program, including pre-application counseling, is available through the College of Continuing Education to some non-degree students and applicants for part-time study. (Write the Director of Career Development, Department of Communication.)

Note to all potential applicants: Address all initial inquiries to the Chairman, Department of Communication. Send application forms, transcripts and other completed forms to the Director of Graduate Admissions of The American University. Address all inquiries on the status of your application to both the Graduate Admissions Office and the Department of Communication Chairman.

Requirements

Requirements include 24-27 hours of approved graduate work in General Communication (12 hours) and in one of Graduate Communication Sequences (12-15 hours); either a thesis (3-6 hours) or study (9-12 hours) in an approved public affairs area outside the Department of Communication; two written comprehensives—one in General Communication and one in a Graduate Communication Sequence listed below.

GENERAL COMMUNICATION (12 hours):

General Communication courses required for all M.A. candidates are Seminar in Public Affairs (17.710) and Methodology of Communication Research (17.760). Also required are any two of the following courses: Communication History (17.500), Legal Aspects of Communication (17.501), Mass Media and Society (17.503), Freedom of Information (17.507).

GRADUATE COMMUNICATION SEQUENCES (12 hours):

One of the following professional sequences:

NEWSPAPER JOURNALISM:

Reporting of Public Affairs (17.724), Government News Reporting (17.536), Editorial Interpretation (17.521), and Advanced Feature Article Writing (17.526).

BROADCAST JOURNALISM:

Reporting of Public Affairs (17.724), Broadcast Journalism II (17.528), Seminar in Broadcasting-Film (17.589) or Television Programming (17.588), and Television Production and Direction (17.584) or Film Production and Direction (17.583).

BROADCASTING-FILM:

Six hours from each of the following two sets of courses as approved by the student's adviser: (1) Seminar in Broadcasting-Film (17.589), History of Motion Pictures (17.558), Television Programming (17.588); (2) Film Production and Direction (17.583), Television Production and Direction (17.584), Independent productions projects. (See "Independent Graduate Study" at the end of course listings below).

PUBLIC RELATIONS:

Reporting of Public Affairs (17.724), Principles of Public Relations (17.540), Promotional Campaigns (17.542) and Public Relations and Government (17.544).

ELECTIVES (3-12 hours):

The number of electives is determined by whether a thesis or non-thesis option is selected. (See "Communication Electives" below.)

INTERNATIONAL COMMUNICATION:

An M.A. program in International Communication, combining study in the Department of Communication and the School of International Service, can be arranged. (For information, write the Chairman, Department of Communication.)

Other Requirements

Students without previous journalistic writing and editing experience who are admitted into the Newspaper Journalism, Broadcast Journalism or Public Relations sequences may be required to take Techniques of Mass Communication (17.101) in the Summer or no later than Fall Semester for incoming graduate students. Students in the Broadcasting-Film Sequence without previous broadcasting experience may be required to take Development of Broadcasting Film (17.381) and Fundamentals of Radio-TV-Film (17.333). A grade average of B (2.00) or better must be maintained during all graduate work counting toward the degree. The student is required to maintain continuous registration. (See the section in this Catalog which refers to the "Required Graduate Study," page 32.)

Comprehensive Examinations

In General Communication, the examination fields include Communication History, Legal Aspects of Communication, Social Aspects of Communication and Freedom of Information and Research Theory and Methodology. In the Graduate Communication Sequences, the examination fields include Newspaper Journalism, Broadcast Journalism, Broadcasting-Film and Public Relations. (See the Department Chairman for particular details.)

Communication Electives

Departmental electives may be selected from among advanced or graduate Communication courses listed below in the Catalog section. If desired courses are not otherwise available, individual study projects may be arranged. (See "Independent Study," page 34.)

Timetable

The full-time student should complete all requirements for the M.A. in three semesters. All students must complete requirements for the M.A. program within three calendar years after entering the program. No extensions or readmissions are approved. The part-time student should not apply for the M.A. program in Communication until he has successfully completed 12 or 15 hours of graduate study with the advice and consent of the Director of Communication Career Development. (For information, write the Director of Communication Career Development, Department of Communication.)

Continuing Education

Correspondence Directory: WILLIAM F. LANIER, *Assistant Dean for Administration*
 HERBERT P. STUTTS, *Assistant Dean for Summer Sessions*
Intercession
 JOHN B. EDGE, *Resident Director, Fort Benning Branch*
 NICHOLAS KITTRIE, *Director, Center for the Administration of Justice*
 JOHN R. MACKENZIE, *Director, Labor Studies Center*

Fields of Study

General Studies, Teaching, Urban Justice, Police Administration, Correctional Administration; Certificate Programs in Accounting, Data Processing, Technology of Management, Urban Affairs, Public Relations and Government Public Information, and Labor Studies.

Center for the Administration of Justice

Due to the recent establishment of the Center for the Administration of Justice in CCE, information concerning degrees, certificates and courses is not included but may be obtained by contacting the Office of the Director, McKinley Hall.

Undergraduate Degrees

The Associate in General Studies and the Bachelor of Science in General Studies are designed for undergraduate part-time students over the age of twenty-one. For the convenience of the adult the course program has considerable flexibility enabling the student to select one of two major areas of concentration, social science or business administration. In most cases requirements for the degree have been structured in such a way that degree completion can be virtually assured through evening classes.

Associate in General Studies

SOCIAL SCIENCE (60 semester hours)

- I. University Requirements (42 hours)
- II. Major Requirements (18 hours)

Six hours each in three of the following areas: Anthropology, economics, history, sociology, government, international relations, and Technology of Management.

BUSINESS ADMINISTRATION (60 semester hours)

- I. University Requirements (42 hours)
 As part of the University requirements students enrolled in this option must include 19.100 and 19.101, Introduction to Economics I and II.
- II. Major Requirements (18 hours)
 - 10.306 and 10.307, Introductory Accounting I and II (6 hours)
 - 10.201 Business Law I (3 hours)
 - Mathematics or Statistics (3 hours)
 - Business Electives (6 hours)

Bachelor of Science in General Studies

SOCIAL SCIENCE OPTION (120 semester hours)

- I. University Requirements (42 hours)
- II. Area of Concentration (42 semester hours)
 Six semester hours each in three of the following fields (plus a minimum of twelve semester hours of upper level course work in one social science): Anthropology, Technology of Management, Economics, Government, History, International Relations, Psychology and Sociology.
- III. Electives (36 semester hours)

BUSINESS ADMINISTRATION (120 hours)

- I. University Requirements (42 hours)
 As part of the University requirements, students enrolled in this option must include 19.100 and 19.101 Introduction to Economics I and II (6 hours); and six hours of Mathematics (Survey or Fundamentals)

II. Area of Concentration (48 semester hours required)

- 10.306 Introductory Accounting I (3)
- 10.307 Introductory Accounting II (3)
- 10.201 Business Law I (3)
- 10.302 Business Law II (3)
- 10.465 Finance I (3)
- 10.481 Principles of Production (3)
- 10.491 Personnel and Manpower Management (3)
- 10.556 Business Budgeting and Executive Control (3)
- 11.300 Marketing I (3)
- 55.310 Introduction to Data Processing (3)
- 55.333 Computer Programming I (3)
- 55.334 Computer Programming II (3)
- 55.511 The Systems Approach (3)
- 55.530 Automatic Data Processing Systems (3)
- 69.202 Basic Statistics (3)
- 69.300 Business Statistics (3)

III. Electives (30 semester hours)

Graduate Degrees

Master of Science in Teaching

Requirements

The Master of Science in Teaching is a professional degree designed to equip qualified candidates who are interested in the field of teaching. It is planned for full or part-time students who already have a bachelor's degree in a field of concentration other than education, and who are seeking a second career in teaching. In most cases the Graduate Record Examinations are not required for admission to the program.

In addition to the prerequisite courses or their equivalents, the program consists of a minimum of thirty graduate credit hours of professional training for teaching at the secondary level. A minimum of twelve graduate hours will usually be taken in the subject matter area in which the candidate desires to teach. The remainder of the credits will be taken in education as outlined under the curriculum which follows. Since candidates are required to take six credits in a graduate research seminar, no thesis is required.

Comprehensive Examinations

To complete the degree each student must pass two comprehensive examinations, one in the subject matter area and one in a core field of education.

The Master of Science in Teaching degree presently offers the following areas as disciplines: Data Processing, English, Foreign Language, Mathematics, Sciences, United States History, and American Government.

I. Prerequisites

- A. Psychology of Education
- B. Methods of Teaching in Secondary Schools
- C. Basic Statistics

II. Foundations of Education (6 hours)

- A. Historical and philosophical basis for education (to be satisfied by one course in history of education and one course in philosophy of education).
 - 21.510 Philosophy of Education (3)
 - 21.512 History of Education in the United States (3) or
 - 21.511 History of Education in Western Culture (3) or
- B. Psychological and Developmental Aspects of Classroom Teaching (to be satisfied by the following courses).
 - 21.520 Advanced Psychology of Education (3)
 - 21.521 Mental Health in Schools (3)

III. *Evaluation and Measurement in Education* (3)

21.522 Evaluation of Student Progress (3)

(Prerequisite: 69.202 Basic Statistics or equivalent)

IV. *Graduate Research Seminar* (3 hours)

21.790 Research Seminar in Education I (3)

21.791 Research Seminar in Education II (3) (required only for those students who have completed student teaching or have had teaching experience.)

V. *Practicum Area* (6 hours)

To be satisfied by 21.792 In-Service Training: Internship in Education. (Prerequisite: one course in methods of teaching in secondary schools.) At least 6 weeks (or the equivalent) of student teaching with a supervising teacher at the secondary level. Arrangements may be made to complete this requirement in evening high schools throughout the Washington Metropolitan area.

VI. *Subject Matter Area* (12 hours)

The student must select a minimum of 12 credits in a major academic area at the advanced level. A list of course offerings for each of the discipline areas is available upon request.

Master of Science in Correctional Administration

The Master of Science in Correctional Administration is a professional degree designed to equip qualified candidates interested in various career areas of corrections for positions of leadership in this field. It is planned especially for those actually engaged in correctional work but is open to all qualified college graduates.

The MSCA program consists of a minimum of 35 credit hours of graduate work. Graduate courses include 14 credit hours in correctional administration plus 12 credit hours in the chosen field of government or sociology or 15 credit hours in counseling, plus 9 credit hours of supplementary courses. In addition, the candidate must pass two comprehensive examinations covering (1) the field of correctional administration, and (2) the field of either government, sociology, or counseling.

Since candidates are required to complete both an in-service training project and a graduate research project, no thesis is required. These two courses must be completed with a grade of at least "B".

I. *Core Curriculum in Correctional Administration* (14 hours)

31.555 Institute of Correctional Administration (8)

Clinical Criminology I—Case Studies

Clinical Criminology II—Field Inspection Trips

Probation and Parole Seminars with correctional leaders

Counseling and Guidance of Offenders

56.690 Graduate Research Project (3)

A field study-operational project and report on a problem approved by the University.

56.691 In-Service Training Project (3)

Internship in a correctional agency for a minimum of 12 weeks under the joint supervision of University and agency officials.

II. *Minor Comprehensive Courses* (A B)A. *Government* (12 credit hours)

54.643 Government Program and Budget (3)

53.650 Graduate Survey of American Government (3)

54.610 Modern Public Management I (3)

54.650 Principles of Public Personnel Administration (3)

B. *Counseling* (15 credit hours)

21.551 Philosophy and Practices in Educational Guidance (3)

21.552 Analysis of the Individual for Purpose of Educational Counseling (3)

21.553 Techniques of Counseling in Education (3) or

57.606 Assessment of Intellectual Functions

21.554 Vocational Analysis, Information and Placement (3)

21.656 Seminar. Psychological Evaluation (3)

III. *Supplementary Courses* (9 credit hours)

- A. All candidates for the MSCA degree are required to take the following course:
53.671 The Judicial System and Process (3)
 - B. All candidates must also take six credit hours from the following course list:
21.551 Philosophy and Practices in Educational Guidance (3)
21.552 Techniques of Counseling in Education (3) or
21.554 Vocational Analysis, Information and Placement (3)
53.650 Graduate Survey of American Government (3)
54.650 Principles of Public Personnel Administration (3)
65.563 Causes of Crime (3)
65.569 Treatment of Offender II (3)
- Choice of these supplemental courses will be decided by the Assistant Dean.

Certificate Programs

Accounting Certificate

The Certificate Program in Accounting has been flexibly designed to equip the student for a variety of careers in accounting. Major emphasis has been laid on courses which will assist the candidate in qualifying for most state CPA examinations. Students who successfully complete the program may also consider careers in managerial accounting with private industry, all levels of government, or non-profit organizations such as trade associations and hospitals.

Students possessing undergraduate degrees take the 27 required credit hours, as set out below, plus 9 credit hours of electives. Those students not possessing undergraduate degrees complete the same program as those with degree, but must also take 6 hours of English Composition and Reading (23.100 and 23.101) and 3 hours of Mathematics (41.100).

The certificate may be completed through 36 hours of course work for students already holding an undergraduate degree and 45 hours of course work for those not holding such a degree. Up to 15 hours of comparable previous work may be applied by transfer. Students may only transfer into the program grades of "C" or better. The student must maintain a "C" average to be awarded the certificate. In order to provide the most appropriate sequence of courses which relate directly to career goals, each student should obtain approval of his program from the office of the Director of Accounting Program in the School of Business Administration.

I. *Required Courses* (27 hours)

- 10.201 Business Law I (3)
- 10.306 Introductory Accounting I (3)
- 10.307 Introductory Accounting II (3)
- 10.314 Intermediate Accounting (3)
- 10.315 Advanced Accounting (3)
- 10.411 Cost Accounting (3)
- 10.431 Fundamentals of Income Tax (3)
- 10.514 Readings and Problems (3)
- 19.100 Introduction to Economics (3)

II. *Electives* (Choose 9 hours)

- 10.302 Business Law II (3)
- 10.421 Auditing (3)
- 10.465 Business Finance I (3)
- 10.512 Advanced Cost Accounting (3)
- 10.532 Advanced Income Tax (3)
- 19.101 Introduction to Economics II (3)

Data Processing Systems Certificate

Students in the Data Processing Certificate Program may gear such a program to careers in the field of public administration or the field of business. The certificate may be completed through 30 hours of course work distributed as described under the curriculum provided below. Up to 12 hours of comparable previous course work may be applied by transfer. A minimum of 18 hours of this program must be taken in residence. Students may only

transfer into the program grades of "C" or better. The student must maintain a "C" average to be awarded the certificate.

I. *Certificate Requirements: (27 hours)*

- 41.100 Survey of Mathematics I (3)
- 69.202 Basic Statistics I (3)
- 10.306 Introductory Accounting I (3)
- 10.307 Introductory Accounting II (3)
- 55.310 Introduction to Data Processing (3)
- 55.333 Computer Programming I (3)
- 55.334 Computer Programming II (3)
- 55.511 The Systems Approach (3)
- 55.530 Automatic Data Processing Systems (3)

II. *Elective: (Choose 3 hours to complete 30 hour requirement)*

- 10.456 Process of Management (3)
- 10.491 Personnel and Manpower Management (3)
- 54.510 Management of Institutional Records Systems (3)

Graduate Certificate Programs Technology of Management

The College of Continuing Education offers the following programs for Graduate Certificates in Technology of Management: Computer Systems, Operations Research, Scientific and Technical Information Systems, Research and Development Management, and Management Information Systems.

With the exception of certain foundation and prerequisite courses, the courses which constitute these certificate programs are taken from the regular Technology of Management curriculum offered by the Center for Technology and Administration. These certificate opportunities are offered as specialized preparation for careers in these fields for the students who do not want the broader and more demanding requirements of alternative graduate degree programs or who cannot meet the other scholastic requirements of graduate study. In certain conditions certificate work may be applied toward the award of a degree.

These certificate programs are open to any student who has a bachelor's degree from an accredited undergraduate institution.

I. *Graduate Certificate in Computer Systems*

Prerequisite Courses (no graduate credit)

- 55.310 Introduction to Data Processing (3)
(Waived for the student who has had two years of job-related computer experience, such as programming and instruction, or substantial experience in non-computer data handling systems)
 - 55.411 Introduction to Management Mathematics (3) (or 41.110 & 41.111)
 - 55.333 Computer Programming I (FORTRAN) (3)
 - 55.334 Computer Programming II (COBOL) (3)
 - 69.400 Managerial Statistics (3) (or 69.202 & 69.300)
Advanced and Graduate Courses (15 hours required)
 - 55.530 Automatic Data Processing Systems (3)
 - 55.561 Management of Automatic Data Processing Systems (3)
 - 55.633 Evaluation of Software (3)
- And two of the following:
- 55.511 The Systems Approach (3)
 - 55.531 Computer Design (3)
 - 55.632 Advanced Computer Applications (3)

II. *Graduate Certificate in Operations Research*

Prerequisite Courses (no graduate credit)

- 55.411 Introduction to Management Mathematics (3) (or 41.110 & 41.111)
- 41.222 Differential and Integral Calculus I (4)
- 41.223 Differential and Integral Calculus II (4)
- 69.400 Managerial Statistics (3) (or 69.202 & 69.300)

Advanced and Graduate Courses (15 or 18 hours required)

55.511 The Systems Approach (3)

55.540 Operation Research in Management (3)

55.542 Probability and Statistics for Management Decisions (3)

55.544 Advanced Management Mathematics (3) (required of students who have had equivalents of 41.222 and 41.223 more than ten years ago)

55.641 Methods of Operations Research I (3)

55.642 Methods of Operations Research II (3)

III. *Graduate Certificate in Scientific and Technical Information Systems*

Prerequisite Courses (no graduate credit)

55.310 Introduction to Data Processing (3)

(Waived for the student who has had two years of job-related computer experience, such as programming and instruction or substantial experience in non-computer data handling systems)

Advanced and Graduate Courses (18 hours required)

55.530 Automatic Data Processing Systems (3)

55.550 Survey of Information Science and Technology (3)

And 12 hours from the following:

55.650 Natural Language Data Processing (3)

55.651 Technical Information Machine Systems (3)

55.653 Concepts of Indexing and Abstracting (3)

55.654 Workshops in Technical Information Handling (3)

55.655 Automated Library System (3)

55.656 Publication Techniques (3)

IV. *Graduate Certificate in Research and Development Management*

Prerequisite Courses (no graduate credit)

69.400 Managerial Statistics (3) (69.202 & 69.300)

10.400 Use of Accounting Methods (3) (or 10.306 & 10.307)

55.411 Introduction to Management Mathematics (3) (or 41.10 & 41.111) or

10.457 Quantitative Methods in Decision Making (3) or one course in business or government management, or substantial experience in management.

Advanced and Graduate Courses (15 hours required)

55.570 Management of Research and Engineering Organizations and Laboratories (3)

55.670 The Politics and Economics of Research and Development (3)

55.671 Research and Development in the Total Organization (3)

55.672 Scientific and Engineering Manpower (3)

55.673 Planning and Control of Research and Development Operations (3)

V. *Graduate Certificate in Management Information Systems*

Prerequisite Courses (no graduate credit)

55.310 Introduction to Data Processing (3)

(Waived for the student who has had two years of computer-related job experience such as programming and substantial experience in non-computer data handling systems)

69.400 Managerial Statistics (3) (or 69.202 and 69.300)

10.400 Use of Accounting Methods (3) (or 10.306 and 10.307)

55.411 Introduction to Management Mathematics (3) (41.110 and 41.111) or

10.457 Quantitative Methods in Decision Making (3) or one course in business or government management or substantial experience in management.

Advanced and Graduate Courses (15 hours required)

55.511 The Systems Approach (3)

55.530 Automatic Data Processing Systems (3)

55.560 Systems Design for Business Operations (3)

55.561 Management of Automatic Data Processing Systems (3)

55.660 Management Information and Reporting Systems (3)

Urban Affairs Certificate

The College of Continuing Education in cooperation with the School of Government and Public Administration offers a Certificate program in Urban Affairs for the student who

does not want the broader and more demanding requirements of alternate graduate degree programs or who cannot meet the scholastic requirements of graduate study. In certain conditions certificate work may apply toward a graduate degree objective.

To be considered for admission to this program, a degree from an accredited institution is required.

To remain in the program, a student is required to maintain at least a "C" in all courses.

I. Prerequisites—From 0-12 hours as follows:

53.650 Graduate Survey of American Government (3) (or 6 hours of Undergraduate American Government.)

54.653 America Federalism (3) (or 3 hours of Undergraduate Urban Government Federalism.)

53.660 Political Dynamics (3), or 53.661 Political Behavior (3) (or 3 hours of Undergraduate Political Dynamics.)

54.600 The Administrative State (3) or 54.610 Modern Public Management I (3) (or 3 hours of Undergraduate Public Administration)

II. Advanced Graduate Course (15 hours required):

53.680 The Urban Polity (3)

53.682 Urban Politics (3)

53.683 Urban Administration (3)

53.684 Urban Planning (3)

3 hours from other courses listed in the M.P.A. in Urban Affairs Program.

Public Relations and Government Public Information

These certificate programs can be completed through fifteen hours of graduate coursework as described below and are open to qualified students who already hold a Bachelor's Degree. Those who have had no previous experience or coursework in the field of communications may be required to take some additional undergraduate prerequisites. No comprehensive examination, research seminar, or thesis is required for these certificates.

Students enrolled in courses applicable to these certificates must maintain grades of "B" or better. Non-degree students previously enrolled in communication courses who did not maintain a grade of "B" in each course will be excluded from participation in the Certificate programs.

All persons applying for admission to the Certificate programs must be screened by the Director of the Career Development Program in Communication. Transcripts of undergraduate studies and evidence of working experience will be required. Students receiving the Graduate Certificate in Public Relations or Government Information may apply some or all credits toward the M.A. degree from the Department of Communication, if otherwise qualified and approved by the faculty for advancement to degree candidacy. However, admission to the degree program is limited (1) to applicants with exceptional academic and professional background; and (2) by factors within the Department of Communication relative to full-time enrollments, size and availability of physical facilities, and numbers of full-time faculty.

Graduate Certificate in Public Relations

A. Required:

17.540 Principles of Public Relations (3)

17.541 Publicity Writing (3)

17.542 Promotional Campaigns (3)

and one of the following:

17.543 Public Relations Overseas (3)

17.544 Public Relations in Government (3)

17.545 Public Relations in Business (3)

- B. Elective: (Choose one)
 17.501 Communication Law (3)
 17.532 Publication Layout and Design (3)
 67.510 Advanced Public Speaking (3)

Graduate Certificate in Government Public Information

- A. Required:
 17.501 Communication Law (3)
 17.503 Mass Media in Society (3) (usually offered during Summer Session)
 17.544 Public Relations in Government (3)
 and one of the following:
 17.526 Advanced Feature Writing (3)
 17.561 Advanced Writing for Broadcasting (3)
- B. Elective: (Choose one)
 67.510 Advanced Public Speaking (3)
 17.523 Advanced Photography (3)
 17.532 Publication Layout and Design (3)

Economics

Correspondence Directory: CHARLES K. WILBER, *Chairman*

Fields of Study

Price, Income, Theory, History and Development
 Contemporary Economic Theory
 History of Economic Thought
 Economic History of Europe
 Economic History of the United States
 History of Economic Development
 Economic Growth and Development
 Economic Development Policy (not open to students in Dept. of Economics)
 Labor Economics
 International Economics
 International Economic Policy (not open to students in Dept. of Economics)
 Comparative Economic Systems and Soviet-type Economies
 Monetary Economics
 Public Finance and Fiscal Policy
 Mathematical Economics
 Econometrics
 Quantitative Method in Economics (open only to M.A. candidates)
 Urban Economics

Undergraduate Degree

Bachelor of Arts

University Requirements. See page 23.

Departmental Requirements

REQUIRED COURSES (27 hours). Major Courses (30 hours):
 19.100 Introduction to Economics I
 19.101 Introduction to Economics II

- 19.300 Intermediate Price Theory: Resource Allocation and the Price System
- 19.301 Intermediate Income Theory: Unemployment, Inflation and Growth
- 19.303 Landmarks of Economic Theory
- 19.314 Senior Seminar

Nine hours of course work chosen from departmental offerings.

QUANTITATIVE COURSES (3 hours)

- 19.310 Introduction to Econometrics or 69.202 Basic Statistics is required.
- Students are urged to take 19.305 Introduction to Quantitative Economics.

RELATED COURSES (12 hours)

Advanced work, selected from the following fields, with not more than 9 hours in any one: anthropology, business administration, education, government, history, international relations, mathematics, philosophy psychology, public administration, sociology. Students planning to continue on to graduate work in economics are advised to take mathematics as a related field.

Note: Grade of C or better is required in all related courses.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Electives

To complete minimum of 120 hours.

Business and Economics Majors

A student in the Department of Economics may earn a B.S. degree with a major in Business and Economics by taking the required courses in the Department of Economics and the following courses in the School of Business Administration:

- 10.306 Introductory Accounting I (3)
- 10.307 Introductory Accounting II (3)
- 10.201 Business Law I (3)
- 10.465 Business Finance I (3)
- 11.300 Marketing I (3)
- 10.481 Principles of Production (3)
- 10.456 Principles of Management (3)

Satisfactory completion of this major enables a student to earn a M.B.A. or M.A. degree in Economics in an additional year of full-time study.

Honors

The Simon Naidel prize of \$50 is awarded annually to the graduate student in Economics who has written the most outstanding comprehensive examination, as judged by the faculty of the Department of Economics.

The Frank Tamagna prize of \$100 is awarded annually to the outstanding student in monetary economics as judged by those professors teaching monetary economics.

Graduate Degrees

Master of Arts

Admission

See page 16.

The Graduate Record Examination is recommended. (In general an overall grade point average of B (2.0) in the last two years of undergraduate work is required.)

Course Requirements

Minimum of 30 hours of approved graduate work is required. This must include Price Theory 19.500 and Income Theory 19.501. Business Statistics 69.300 or 69.514 Methodology I is required. Either 19.305 Introduction to Quantitative Economics or 19.521 Quantitative Economic Analysis is required. Students must either complete a Master's thesis, two non-thesis seminars, or two independent research projects.

Doctor of Philosophy

Admission

See page 16.

The Graduate Record Examination is recommended.

Course Requirements

Minimum of 72 hours of approved graduate work is required, including 19.799 Doctoral Dissertation Seminar (up to 24 hours). Students entering the Ph.D. program with M.A. degrees earned elsewhere must complete 30 hours of course work in residence plus 12 hours of dissertation credit.

TOOL OF RESEARCH

The following courses must be completed with a grade of B or better:

19.521 Quantitative Economics

19.522 Econometrics I

19.523 Econometrics II or some other tool which may aid the graduate student in further research into economic problems (e.g., a language or an alternative research methodology such as the philosophy of science or the philosophy of history); the substitution of an alternative tool for Econometrics II must be approved by the faculty upon request for such substitution by the student and a justification on his part for such substitution.

INDEPENDENT RESEARCH

The Ph.D. student (in order to further familiarize him with research techniques and methods and the practical problems involved in research) will be required to have at least 6 hours of individual research. The individual research project would require the willingness of a faculty member to approve the proposed research and to serve as adviser to the student who wishes to pursue some research that he is interested in (but which may be peripheral to his course work).

COMPREHENSIVE EXAMINATIONS

1. An oral exam will be required before advancement to candidacy. This exam is to be taken after one year or the completion of 18 hours and before the written comprehensive examinations are attempted. The oral exam will be at the principles level, and the test will be used as both a screening and an advising device. It may also be used in determining the eligibility of a student to waive one of his comprehensives (see below).

2. A minimum of five written comprehensive exams will be required: One in Price Theory, one in Income Theory, one in the History of Economic Development, and two in elective fields (one of which may be outside the economics department). One elective field may be satisfied by satisfactory completion of 6 hours (better than B) of course work in the field and by the approval of the faculty.

The comprehensive exams must be taken within one year of completion of residence requirements. The student has the option of taking all five exams at one comprehensive examination period, or he may choose to split up his comprehensive schedule by taking the theory comprehensives during one examination period and the history of economic development and the two elective comprehensives during the next examination period the following semester. (Under extenuating circumstances, a student may be given an additional semester before he takes the remaining three comprehensives after he has passed the theory comprehensives.)

3. An M.A. degree will be conferred upon completion of all Ph.D. requirements except dissertation.

4. An oral examination will also be required on the Ph.D. dissertation.

Education

Correspondence Directory: STERLING D. WHITLEY, *Chairman*
BERNARD A. HODINKO, *Vice President for Student Life*

Fields of Study

Elementary, Early Childhood, Secondary, History and Philosophy, Psychology, Administration, Special, Counseling, Student Personnel Services in Higher Education, Supervision and Curriculum Development (Reading and Science), Religious Education.

Undergraduate Degree

Bachelor of Arts

Admission Requirements

See page 12. Students considering elementary and secondary teacher preparation must notify the Education Department of their intent at the earliest possible time. The Department will provide an adviser and guidelines which will help in planning a program and in qualifying the student for state certification.

Admission to the program is approved on an individual basis. However, the following factors will be considered by the Committee on Admissions to the Undergraduate Programs of Teacher Education:

- (1) Personality factors related to teacher effectiveness.
- (2) Cumulative grade point average of 1.5 and acceptable grades in English.
- (3) Satisfactory test scores of SCAT and CEEB or the equivalent.

University Requirements

See page 23.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the course selected at the University. Consult the Department for suggested options available in languages.

ELEMENTARY AND EARLY CHILDHOOD EDUCATION

Prerequisite

57.200 General Psychology or equivalent is required before course work commences.

Department Requirements

PROFESSIONAL CORE (30 hours)

(a) 21.300 Foundations of Education: Social and History Bases; Philosophical and Psychological Principles (6 hours). Equivalent courses which have been taken prior to registration at The American University may be substituted for part or all of this course. Observation and participation will be included.

(b) 21.350 Methods and Materials in Elementary and Early Childhood Education: General and Special, Reading, Language Arts, Social Studies, Mathematics, and Natural Sciences (9 hours). Opportunities for observation and participation in elementary schools in the Washington area are provided.

(c) 21.444 Student Teaching: Elementary and Early Childhood: Grades 1 through 6 (15 hours). Fifteen weeks of fulltime observation, participation and actual teaching are required.

Note: Nine credit hours may be taken by those doing their student teaching for certification purposes only.)

AREA OF CONCENTRATION COURSES (24 hours)

Students majoring in elementary education are required to have an area of concentration consisting of a minimum of 24 semester hours of work in an academic subject-matter field.

RELATED COURSES (12 hours)

These are courses chosen by the student in consultation with his adviser which relate to particular state certification requirements or which he may need to improve his teaching competence or background. The courses may be departmental courses and/or courses from other academic units.

ELECTIVES

Additional courses to complete a minimum of 120 hours is required.

ADDITIONAL INFORMATION

A detailed brochure on the elementary and early childhood education program is available in the Department of Education offices.

SECONDARY EDUCATION**Major**

Undergraduate students planning to teach in secondary schools *must major in the field in which they plan to teach*. In addition, they must complete the following courses in professional education:

(a) 21.300 Foundations of Education: Social and Historical Bases: Philosophical and Psychological Principles (6 hours) (Prerequisite: General Psychology).

(b) 21.340 Methods and Materials in Secondary Education: General and Special: English, Foreign Languages, Mathematics, Natural Sciences, and Social Studies (4 hours) Methods courses in music, art, and physical education are offered in the respective departments. Observation and participation in secondary schools are provided for all students.

(c) 21.445 Student Teaching: Secondary Schools. Grade 7 through 12 (9 or 12 hours). Nine weeks of full-time observation, participation, and teaching are required for nine semester hours of credit and twelve weeks for twelve semester hours of credit.

(d) Any other courses required for teaching certification in the state in which the student plans to teach.

Transportation

It is the responsibility of each student to provide transportation to his teaching assignment.

Graduate Degrees

Graduate requirements are constantly being refined in order to improve the excellence of the graduate programs of the Department. Students, therefore, should consult departmental offices for the latest information. The student must assume all responsibility for meeting deadlines as announced in the University Calendar and must be conversant with all graduate regulations pertaining to his particular degree. These will be found in this Catalog and the *Schedule of Classes Bulletin* issued for each semester.

Masters Degrees

The Department of Education offers two degrees in education at the Master's level: the degree of Master of Education and the degree of Master of Arts in Education. Each of these degrees has its discrete orientation and addresses itself to the singular need of the student. The degree of Master of Education is appropriate for professional educators, teachers at all educational levels, education in its broader aspects and relationships. The degree of Master of Arts in Education is structured to meet the needs of those who, while they are primarily concerned with professional activities which are essentially educational in nature, yet prefer to emphasize the academic or research aspects of their educational interests. The degree of Master of Arts in Education may be thus more appropriate for teachers of a particular academic subject or research and field workers whose concerns with education are somewhat different from those of the classroom teacher or the school administrator.

Master of Education

See the regulations regarding graduate study in this Catalog, page 28, before reading further in regards to minimum standards of admission and other information.

Prerequisites

All candidates must have had one course in general psychology or the equivalent; one course in statistics; a minimum of nine semester hours of undergraduate and/or graduate credit in education; and an acceptable score on the *Graduate Record Aptitude Examination*; and/or *The Miller Analogies test*.

A student who seeks the Master of Education degree must in most cases be able to meet the requirements for a teacher's certificate in some state in elementary or secondary education unless enrolling in a program preparing for positions in higher education. Certification requirements universally require student teaching (or successful teaching experience) or a teaching internship such as 21.659 or 21.769 or 21.792 In-service Training Project: Internship in Education.

A student may be admitted to a Master's degree program only after all prerequisites are met.

Course Requirements

The minimum credit hour requirement for the Master's degree is thirty credit hours; however, some programs will require additional credit hours.

Courses required of all candidates are:

21.510 Philosophy of Education

21.520 Advanced Psychology of Education

21.790 Research Seminar in Education I and

21.791 Research Seminar II (or an In-service Training Project such as 21.659, 21.769, or 21.792.)

Written Comprehensive Examinations

Two are required, of which one must be taken in a core field; or both may be taken in the core fields; or one may be taken in a specialized field of Education, or in a field outside of education, but only if approved by the Department of Education as well as the other Department. (See detailed literature in the Department of Education. See also page 29.)

Both comprehensives must be taken during the same comprehensive examination period.

Twelve hours of credit may be taken in a department other than the Department of Education if the student plans to take one comprehensive examination in a field outside of education. (Credit in an academic area is a requirement for the Advanced Professional Certificate in the State of Maryland.)

Available Comprehensive Examinations Fields

See the listing under *Master of Arts*.

Master of Arts

See the Graduate Studies section of this Catalog in regards to minimum standards for admission and other information.

Prerequisites

Same as for Master of Education degree except that sufficient course work must be taken in a field other than education so that the student is able to demonstrate competence in a comprehensive exam in that field.

Course Requirements

Same as for Master of Education degree, except that course 21.797 Master's Thesis Seminar must be taken in place of 21.791 Research Seminar in Education II, and a thesis must be written. (See detailed literature in Department of Education.)

Written Comprehensive

Two are required, of which one must be taken in a core field of education, and the other one in a field outside of education. (See also page 92). Both comprehensives must be taken during the same comprehensive examination period.

Other Requirements

An acceptable thesis and subsequent oral defense of the thesis.

Available Comprehensive Examination Fields

Master of Education and Master of Arts Degrees:

CORE FIELDS

21.001 History and Philosophy of Education

21.002 Psychology of Education

SPECIALIZED FIELDS

21.003 Educational Administration

21.004 Special Education

21.005 School Counseling

21.006 Student Personnel Services in Higher Education

21.008 Supervision and Curriculum Development: Reading Curriculum or Science Curriculum.

Doctoral Degrees

The Department of Education offers two degrees in education at the doctoral level: the degree of Doctor of Education and the degree of Doctor of Philosophy in Education. Each of these degrees has its own discrete orientation and addresses itself to the singular need of the student. The degree of Doctor of Education is appropriate for professional educators: teachers at all educational levels, administrative and supervisory personnel, and all others who are engaged primarily in activities of a purely educative nature. The degree of Doctor of Philosophy in Education is structured for those whose professional orientation to education is not so closely related to classroom activity but rather to research applications of education, or who may wish to relate education to a particular subject area or academic field.

Qualitatively and quantitatively the degrees are coequal. Their differences lie only in the need to structure each degree program to the professional objective of the student.

The privilege that is granted the student to pursue the discipline for the doctorate presumes that the ability of the student is equal to the rigorous demands of the doctoral program. This ability is evidenced by competence to pass appropriate comprehensive examinations which are addressed to the student's knowledge of his field, and his ability to carry out independent study and research in depth relative to that field. No amount of course work by itself will satisfy the total requirements for the doctorate.

The specific differences between the programs for the Doctor of Education degree and the Doctor of Philosophy degree are set forth in the following paragraphs.

Doctor of Education

Prerequisites

Master's degree or equivalent, with a minimum of eighteen (18) semester hours of undergraduate and/or graduate work in education; one course in General Psychology or the equivalent; a course in basic statistics; and in some instances, the course requirements for state certification unless enrolling in a program preparing for positions in higher education; in addition the student must have achieved a satisfactory score on the Graduate Record Aptitude Examination and/or the Miller Analogies Test, and have attained a satisfactory grade point index (2.5) in his former graduate and undergraduate work. All prerequisites must be completed before admission to the program.

Course Requirements

See page 29.

Minimum of 72 semester hours of approved graduate work, including:

21.520 Advanced Psychology of Education (3 hours),

21.610 Advanced Philosophy of Education (3 hours),

21.790 Research Seminar in Education I (3 hours), and

21.799 Doctoral Dissertation Seminar (12 hours).

Written Comprehensive Examinations

Four are required; including the two core fields in education (which are required of all doctoral candidates), a third from a specialized field in education, and a fourth from either another specialized field in education, or a field outside of education.

One of the core comprehensive examinations may be taken at the time of *advancement to candidacy* which normally comes after twelve (12) to eighteen (18) hours of work in the doctoral program.

Other Requirements

(1) Two consecutive semesters of full-time residence work (9 credits of course work minimum per consecutive semester) at the University (summer-fall; fall-spring; spring-summer),

(2) Dissertation and oral defense of dissertation (see detailed literature in the Department of Education), and

(3) Proficiency in two tools of research (quantitative or languages).

The tool examination in Educational Psychological Measurement and Evaluation, which is given by the Department of Education, is administered on the Saturday following the first school week in January and the first Saturday in June each year. Students in the co-operative program in Religious Education may substitute the seminar in action research for one of the tools.

Available Comprehensive Examination Fields

See Listing below under Doctor of Philosophy.

Doctor of Philosophy

Prerequisites

Same as for Doctor of Education degree, described in the preceding.

Course Requirements

Same as for Doctor of Education degree, except that sufficient course work must be taken in one field other than that of education so that the student is able to demonstrate competence in a comprehensive examination in that field.

Written Comprehensive Examinations

Four are required: including the two core fields in education (which are required of all doctoral candidates), one in a specialized field in education, and one in a field outside of education. The field outside of education may be from those academic areas which are commonly known as the liberal arts or from another professional field, if the student's anticipated occupation supports such an elective as being reasonable; in the latter case only if both the Department of Education and the outside department or school approve the choice.

No comprehensive examination can be given *in absentia*.

One of the core comprehensives may be taken at the time of *advancement to candidacy* which normally comes after twelve (12) to eighteen (18) hours of work in the doctoral program.

Other Requirements

Proficiency must be demonstrated in two tools of research, one of which must be in a foreign language. Two consecutive semesters of full-time residence work must be successfully completed at the University. (9 credits of course work minimum per consecutive semester-summer-fall; fall-spring; spring-summer.) The dissertation for the Doctor of Philosophy degree must be a theoretical, pure-research type of study which should be of universal value as a contribution to knowledge. (See detailed literature in the *Department of Education* offices.)

Graduate Comprehensive Examination Fields

Doctor of Education and Doctor of Philosophy Degrees:

CORE FIELDS

21.021 Historical and Philosophical Foundations of Education

21.022 Psychological Foundations of Education

SPECIALIZED FIELDS

- 21.023 Educational Administration
- 21.024 Special Education
- 21.025 School Counseling
- 21.026 Student Personnel Services In Higher Education
- 21.028 Supervision and Curriculum Development: Reading or Science
- 21.027 Religious Education (available through Wesley Theological Seminary)

Tool Examination Areas**LANGUAGES**

French, Spanish, German, or another foreign language by special permission of the Department of Education and the Department of Languages and Linguistics.

QUANTITATIVE

Statistics, Educational Measurement, and/or another tool by special permission of the department involved.

Inter-Departmental Program

For information on the Master of Science in Science Teaching program see the description of the offerings of the various departments in *Interdepartmental Science*. For information on The Master of Science in Teaching program see the description of the offerings in *Continuing Education*.

English

Correspondence Directory: BARRY A. MARKS, *Chairman*

Fields of Study

American Literature, English Literature, Comparative Literature.

Undergraduate Degree

Bachelor of Arts

University Requirements

See page 23.

Note: Humanities are normally satisfied by major and related requirements. Consult Department.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Department Requirements**MAJOR COURSES (36 hours)**

23.115 Approaches to Literature (3); Survey courses in English and American Literature (12); 23.392 Senior Undergraduate Seminar (3); and 18 additional hours in literature, writing, or English language. Students planning to teach should elect at least three credits in English language or linguistics.

RELATED COURSES (12 hours)

Either 12 hours of courses in one related field, as a minor; or six hours of courses in each of two related fields. The following fields are recommended: art, history, journalism, linguistics, music, philosophy, speech arts, foreign literatures.

Electives

To complete minimum of 120 hours.

SECONDARY SCHOOL TEACHER TRAINING

The Department of English, in cooperation with the Department of Education, offers a curriculum which will lead to certification for teaching English at the high school level. Students who have selected this as their vocational objective should see the teacher education adviser in the English Department during the second semester of the Freshman year.

Department Honors

Interested students should consult the Director of Undergraduate Studies in English no later than the middle of his junior year.

Graduate Degree

Master of Arts

Course Requirements

Minimum of 30 hours of approved graduate work, including a minimum of two Graduate level seminars in addition to 23.797 Master's Thesis Seminar (6).

Written Comprehensive Examinations

Two, including one general examination in English and American literature; and one in a specialized field chosen in consultation with the English Department.

Other Requirements

Proficiency examination in French or German; advancement to candidacy after completion of 12 graduate credit hours; Thesis.

Available Comprehensive Examination Fields**REQUIRED**

Group A. 23.100 Series—General Examination in English and American Literature

SPECIALIZED FIELDS

Group B. A selection of one specialized field as approved by the English Department:

23.200 Series—A Period of English Literature

23.300 Series—A Period of American Literature

23.400 Series—An Aspect of Comparative Literature

Government and Public Administration

Correspondence Directory: EARL H. DE LONG, *Dean*

CHARLES H. GOODMAN, *Associate Dean for Undergraduate Program*

ROBERT E. CLEARY, *Associate Dean for Graduate Program*

NATHANIEL S. PRESTON, *Director, Washington Semester Program*

Fields of Study

Modern Government, U.S. Government, Political Theory, Comparative Government, International Relations, Public Law and Legal System, Political and Electoral System, National Policy Processes (Legislative and Executive), Administrative System, Metropolis, Government and Social Order, Public Administration, Urban Affairs, Technology of Management, Methodology, Public Law, State and Metropolitan Studies, Philosophy, Science and Government.

Undergraduate Degrees

Bachelor of Arts

IN POLITICAL SCIENCE

This program leads to the degree of Bachelor of Arts in Political Science.

The program and degree of Bachelor of Arts in Political Science are available through registration in the School of Government and Public Administration or in the College of Arts and Sciences. In this Political Science major program as set forth below, there are slight differences between the SGPA and the CAS programs. These are clearly specified in the body of the program. The CAS student will also have some other requirements which do not apply to students in SGPA.

Admission and Retention Requirements

Requirements for admission to or continuation in the undergraduate program in this School are the same as for students in the College of Arts and Sciences. See page 12.

University Requirements

Political Science majors, whether in SGPA or CAS, are bound by the general University Requirements stated in the Academic Regulations Section of this catalog. See page 23.

School or College Requirements

For Political Science majors who are registered in SGPA, the School has no additional requirements except the features of the Political Science major program as defined below. Political Science majors in CAS will be responsible for certain additional requirements, such as foreign language, as prescribed by that College.

Foreign Language Course Regulation

Undergraduate students majoring in the School of Government and Public Administration are not required to take foreign language. However, if a student wishes, he may.

It is necessary to complete successfully the second session of a beginning or intermediate foreign language course to receive academic credit for the first session of the same course. Academic credit is not awarded for a single session of language study at these levels. This includes beginning and intermediate intensive language courses.

Graduate Record Examinations

The School of Government and Public Administration does not require its graduating seniors to take any portion of the Graduate Record Examinations. However, many graduate schools throughout the United States do require such examinations as a condition of consideration for admission. Graduating seniors who may later decide to undertake graduate study would be wise to take some or all of the tests of the Graduate Record Examinations. The Director of Testing and Guidance should be consulted for advice on which tests to take for the individual student's needs.

Students who hope to enter the employment of the United States Government should know that a high score in the Aptitude Test of the Graduate Record Examinations will be accepted in lieu of the Federal Entrance Examination as a basis for consideration for Federal employment. Such students also would do well to take this Test.

At the beginning of the fall semester, seniors who wish to take such examinations should write directly to The Educational Testing Center, Princeton, New Jersey, for information about the times and places for taking such tests in the Washington, D.C. area.

POLITICAL SCIENCE MAJOR

Requirements

This program for the Political Science major is outlined here in four parts and given in detail in the full undergraduate curriculum following:

Part I. FOUNDATION COURSES: All 15 hours required.

53.100 Modern Government

53.150 U.S. Political System I

53.250 U.S. Political System II

53.200 Introduction to World Politics I

53.300 Research and Political Science I

Part II. FIELDS OF SPECIALIZATION: 18 hours required, with the following options:

1. 6 hours in each of three fields, or
2. 6 hours in each of two fields, and 3 hours in each of two others, or
3. (for students who are selected for the senior honors track) 6 hours in each of two fields and six hours in honors courses 56.498 and 56.499.

A) *Theory of Politics and Government*

- 53.310 Political Theory I
- 53.410 Political Theory II

B) *Comparative Government and Politics*

- 53.330 Comparative Government I
- 53.430 Comparative Government II

C) *International Relations*

One or two of the student's three fields may be chosen from the following three pairs of International Relations courses. If the student elects two of these courses, no further International Relations courses may be applied to the requirement in Part IV, Related Course Requirements, following.

- 33.400 Introduction to International Law
- 33.440 Introduction to International Organization
- 33.302 Foreign Policies of the Great Powers
- 33.430 American Foreign Policy
- 33.414, 33.410, etc. Introduction to an Area
- 33.429, 33.425, etc. International Relations of that Area

D) *Public Law and Legal System*

- 53.350 Law and the Political System
- 53.450 Civil Rights and Liberties

E) *The Political and Electoral System*

- 53.351 Political Dynamics
- 53.451 Political Parties and Interest Groups

F) *National Policy Processes*

- 53.352 Legislative Process
- 53.452 National Executive

G) *Administrative System*

- 53.353 Administrative Process
- 53.453 The Bureaucracy

H) *The Metropolis*

- 53.354 Government and the Metropolis
- 53.454 Metropolitan Political Systems

For certain selected students, 56.413, 56.414, and 56.415 (Urban Semester Seminars and Project) will substitute for 53.354 and 53.454.

I)* *Government and the Social Order*

- *53.355 Government and the Social Order
- *53.455 Problems in Social Policy

J) *General*

- 53.356 Black Politics

Part III. A ONE-COURSE CHOICE FOR SGPA SENIORS: 3 Hours (Not required of CAS students.)

- 53.400 Research and Political Science II
- 53.401 Senior Research Seminar
- 53.460 Perspectives in Government and Politics

* Applicable only as electives for CAS students.

Part IV. RELATED COURSE REQUIREMENTS

For SGPA students: 18 hours, required of all Political Science majors in courses outside of SGPA. These may be courses in any other social science subjects or in statistics, but not more than six hours may be taken in any one of the subjects of statistics, international relations, technology of management, or public administration.

For CAS students: 18 hours to include the following specific courses:

19.100 Introduction to Economics I(3)

19.101 Introduction to Economics II(3)

And 12 additional hours of History or Economics courses at the 300-level or above.

Honors Program

By student application, and by selection by the Associate Dean of SGPA during the student's junior year, American University Political Science majors may take two honors courses (56.498, 56.499) for six hours during the senior year. Students so selected and registered may substitute this honors track for any one of the three 6-hour sequences required under paragraph 2, Fields of Specialization (page 000). With successful achievement, such students will receive their bachelor's degrees with Honors.

For selection, the student must have, in course work taken prior to the selecting decision, a 2.0 average in all course work, and a 2.25 average in all course work taken under the requirements of this Political Science Major Program structure. The two courses (56.498, 56.499) constitute this honors opportunity. They will normally be taken in the order listed, one each semester. With the approval of the Associate Dean of SGPA, they may be taken concurrently in the same semester. Both courses are offered every semester.

Graduate Degrees

Degree Programs Available

The School of Government and Public Administration offers the following graduate degree programs:

Master of Arts in Government

Master of Arts in Public Administration

Master of Arts in Public Administration: Technology of Management

Master of Public Administration

Master of Public Administration in Urban Affairs

Master of Public Administration: Technology of Management

Doctor of Philosophy in Government

Doctor of Philosophy in Public Administration

Doctor of Philosophy in Public Administration: Technology of Management

The MA programs are academically oriented, as the beginnings of graduate specialization and as foundations to prepare for and test for continuation into doctoral level study. All MA students must take 53.610: *Theory and Method of Political Research-I* and two research seminars.

While the MPA programs are also fully academic in quality, they are intended as preparation for the practice of the professional specialization which is the object of the degree rather than for teaching or doctoral continuation. The MPA form is strongly recommended as the preferable pattern for most Master's level students in Urban Affairs and Technology of Management. MPA programs require only one research seminar and do not require 53.610, although the total program requirements will equal those for the MA.

Students who complete an MPA program may continue into doctoral study, if otherwise admissible, but they will be required to make up the additional requirements.

The Ph.D. programs are intentionally academic in emphasis and orientation, in the sense that they are designed as education for graduate-level college teaching and research. Coincidentally, they are intensive professional specializations which apply in the operations of government and political affairs as well as in academic teaching and research. The Ph.D. graduate of these programs will be aided in the performance of governmental executive responsibility, but they are not intended as executive development programs and should not be undertaken specifically as such.

Foreign Graduate Students

Special considerations for potential Foreign Graduate Students:

The School of Government and Public Administration welcomes applications for graduate study from qualified foreign students. It offers special programs in public administration which are designed for and limited to foreign officials and students. While certificates of achievement are offered in these special programs, they do not lead to Master's or Doctoral degrees.

Regardless of his native background, the potential foreign student is required to have a thorough mastery of the English language and a solid Western culture foundation.

While the foreign student is being considered for admission to this School, he may in some cases, be admitted provisionally with the stipulation that he take at least a semester in residence to provide opportunity for careful assessment of his adequacy and preparation for graduate study. If found unqualified the student may be required to undertake an extensive program of preparation before further consideration for admission. In some circumstances, a supplemental tuition charge may be required to cover the additional costs of faculty time and attention. This, also, may be necessary to provide adequate academic assistance after admission to degree study.

Time Limits for Transfer of Credit

Unless it was part of a completed degree program, graduate work taken more than twelve years before admission or readmission will not be applied or accepted by transfer.

Required Graduate Registration

See page 32.

If any student has been inactive for more than five years, he may normally expect to have to retake comprehensive examinations, even if previously passed, and he may be required to retake some or all of the course requirements for this program.

Master of Arts and Master of Public Administration

General Requirements

See page 29 for general graduate requirements for master's degree programs. The following SGPA requirements also apply for the SGPA Master's level programs.

Eligibility

Candidates applying for consideration for admission to the MA or MPA program must have an undergraduate record of 1.5 overall on a 3.0 scale with 2.0 in the major. Subject to a 20% ceiling, provisional admission may be granted on a lower undergraduate record or on the basis of 12 hours with a better-than-B average of relevant graduate-level work.

For students who are not admissible to these Master's programs on these terms or who do not wish to undertake the full load of Master's program requirements the College of Continuing Education offers graduate certificate programs in Urban Affairs and in the various specialties under the Technology of Management program. See page 83. These certificate programs are less demanding in admission and performance requirements and in course work requirements as compared with the Master's degree programs. For an applicant who does not meet the requirements for Master's program admission an impressive performance in a certificate program will be a basis for reconsideration.

Foundation Courses

A background of relevant undergraduate preparation is preferred but not required. The insufficiently prepared student may have to take from 3 to 18 hours of intensive preparation courses as foundation makeup, depending on his particular program and his own academic history. These foundation courses may be graduate courses with graduate credit, or special or undergraduate courses without graduate credit. If required, they are additions to the minimum course and seminar requirements stated below.

For the various Master's degree programs, these foundation requirements are the following courses or acceptable equivalents:

● **M.A. IN GOVERNMENT**

53.600 Political Thought of the Modern State (3)
 53.630 Graduate Introduction to Comparative Government and Politics (3)
 53.650 Graduate Survey of American Government (3)
 One three-hour international relations course of .500 level or higher.

● **M.P.A. IN URBAN AFFAIRS**

53.650 Graduate Survey of American Government (3)
 53.653 American Federalism (3) (or a course in urban government)
 54.600 The Administrative State (3) or 54.610 Modern Public Management-I (3)
 One graduate course in political dynamics.

● **M.P.A. AND M.A. IN PUBLIC ADMINISTRATION**

53.650 Graduate Survey of American Government (3)
 53.670 Constitutional Law and the Supreme Court (3) or 53.672 Administrative Law and Process (3)

One graduate course in each of two of: political theory, political dynamics, psychology.

or
 53.650 Graduate Survey of American Government (3)
 53.310 Introduction to Data Processing (0)
 55.411 Introduction to Management Mathematics (0)
 69.400 Managerial Statistics (0)

Although these two groups of courses are optional alternatives under current SGPA requirements, all public administration students are strongly advised to include 55.310, 55.411 (or 41.110 and 41.111), and 69.400 (or 69.202 and 69.300) in their programs and, in addition, 10.400: Use of Accounting Methods (no graduate credit). These subjects are increasingly necessary as basic tools of education and practice in public administration.

● **M.P.A.: TECHNOLOGY OF MANAGEMENT**

● **M.A. IN PUBLIC ADMINISTRATION: TECHNOLOGY OF MANAGEMENT**

53.650, 55.310, 55.411, and 69.400, as above, plus 54.610: Modern Public Management (3).

Although it is not a requirement, students in these programs are also strongly urged to include 10.400: Use of Accounting Methods (0).

If a student elects a comprehensive field in Computer Systems (55.063) or in Management Information Systems (55.066), and if he does not have academic work or extensive experience in computer programming, he will need a no-graduate-credit course in Computer Programming.

If the student elects a comprehensive field in Operations Research (55.064), he will need 41.222 and 41.223: Differential and Integral Calculus (4)(4), or equivalents.

Minimum Courses and Seminars Requirements

These Master's degree programs require a minimum of 30 to 33 graduate course and seminar hours as follows, not including any courses which may be taken as foundation or prerequisite requirements:

● **ALL M.A. PROGRAMS REQUIRE:** 53.610: Theory and Method of Political Research-I (3 hours); one or two further courses as general requirements (3 or 6 hours); three courses in each of two comprehensive examination fields (18 hours); one research seminar in each of two comprehensive fields (6 hours). Total—30 or 33.

● **THE M.P.A. IN URBAN AFFAIRS REQUIRES:** Internship or Public Affairs Laboratory (6 hours); one sociology course (3 hours); three courses in each of two comprehensive examination fields (18 hours); one research seminar in one comprehensive field (3 hours); one elective (3 hours). Total—33.

● **FOR THE M.A. OR M.P.A.: TECHNOLOGY OF MANAGEMENT:** Two or three basic courses as general requirements (6 or 9 hours); three courses in each of two comprehensive examination fields (18 hours); one research seminar in one comprehensive field (3 hours); one elective (3 hours). Total—30 or 33.

M.A.-M.P.A. Comprehensive Examinations Requirements

All M.A. and M.P.A. programs require two comprehensive fields, as specified above, with a written examination in both at the end of completion of course and seminar requirements. These fields are listed on page 103. The graduate curriculum beginning on page 185 and 227 is organized by comprehensive field and shows the full detail of the related courses.

M.A.-M.P.A. Research Requirements

The M.A. research requirement is normally fulfilled by a research paper and a grade of B in the two required seminars, one in each of the two comprehensive fields.

The M.P.A. research requirement is normally fulfilled by a research paper and a grade of B in the one research seminar required in one of the two comprehensive fields.

As an exceptional case, requiring special approval by the Dean, this requirement may be met by registration for six hours in 56.797: Master's Thesis Seminar and completion of an acceptable Master's thesis. Six credit hours, with a grade of B or better, in 56.630: Government Internship may be accepted in lieu of one three-hour research seminar.

Doctor of Philosophy

General Requirements

See page 16 for the general University requirements for the Ph.D. degree. The following S.G.P.A. requirements also apply generally to all S.G.P.A. Ph.D. programs.

Ph.D. Eligibility

Candidates applying for consideration for admission to the doctoral program are required to have a master's degree or equivalent with a better-than-B record if the undergraduate record is at least 1.5 overall on a 3.0 scale. If the undergraduate record is below 1.5, the minimum admission standard is 2.3 in a completed master's program or 2.5 in a master's program still in progress. For applicants who are exceptional in some compensating respect provisional admission will occasionally be granted on records which do not meet these standards.

Application

Beginning with the fall 1970 term, applicants for Ph.D. programs will normally be considered and admitted only for the fall term of each year. March 1 is the deadline for application. Applicants should take the verbal and quantitative Graduate Record Examination.

Preference will be given to applicants for full-time study, with increasingly selective admission for basically part-time study. While the highly qualified part-time Ph.D. student will continue to be welcomed, he will usually be expected to complete at least 18 hours of graduate course and seminar credit within one nine-month academic year at some time during his program. This will usually require the part-time Ph.D. student to spend one semester in full-time residence while he is taking Ph.D. course work.

All applicants, and especially those who intend part-time effort, should be aware that these S.G.P.A. doctoral programs will be demanding undertakings. Only those who are very strongly motivated should apply.

If an applicant is marginal by these standards, or if the School has accepted as many Ph.D. students as it currently has room for, the applicant may be offered admission to the related S.G.P.A. master's program (even if he already has one master's degree), with later reconsideration for Ph.D. admission on the basis of his new performance. In such cases, except for two master's level comprehensive examinations, the total program will be approximately the same whether in M.A./Ph.D. sequence or direct Ph.D. admission.

Foundation Courses Requirements

A relevant academic foundation in undergraduate and Master's programs is preferred but not required. The minimum course and seminar requirements stated below presume such foundations. The student who comes without them will be required to take substantially more than such minimum requirements, including the possibility of special or undergraduate preparatory courses with no graduate credit. See the foundation courses listed in the preceding statement of master's degree program requirements.

Minimum Courses and Seminars

These S.G.P.A. doctoral programs are a requirement for the fulfillment of a carefully designed program profile, not just for the accumulation of an arithmetic total of credit hours.

The minimum requirement is 60 hours of graduate course and seminar work, including relevant master's level work but not including dissertation. The significant criterion, however, is the adequacy of the student's preparation for his comprehensive examinations. More likely than not, this will be a need for more than the minimum 60 hours.

As a positive requirement, the Ph.D. student will take any necessary foundation courses. All doctoral students are required to take 53.610 and 53.611, *Theory and Method of Political Research-I and II*, or to show direct equivalents. Each student is required to take one advanced seminar in each of his four comprehensive examination fields.

Except for these requirements and the 60-hour minimum, each doctoral student will be the judge of his own need for any particular course in any of his comprehensive examination fields. If he takes any such course without having had the specified prerequisites, he does so at his own academic risk.

Quality Requirement

An average of better-than-B in all graduate course and seminar work is required. This is higher than the University requirement of 2.0 for required good standing and will normally be interpreted as a requirement of 2.25 or better.

Advancement to Candidacy

The student will apply for advancement to candidacy after 18 hours. He may be terminated at this time if he has failed to maintain the quality requirement or if, for other reasons, the Dean and faculty conclude that he does not show high probability of completing the program with high, not just minimal, performance.

The review of the student at the stage of advancement to candidacy may include a review of record or oral or written examination, as the dean and faculty of the School may determine, either as a general policy or as special action in an individual case.

Doctoral Comprehensive Examinations

The comprehensive examination fields are listed on page 103 and the related courses are given in the graduate curriculum. These examinations will include a written examination in each of the three non-dissertation fields, all taken at the same time at the end of course work. The fourth examination, to be taken shortly after the written have been passed, will be an oral. It will cover primarily the substance of the dissertation field, but it will also be a more general examination of the intellectual breadth and quality of the candidate. With special prior notice to the candidate, the oral may also re-examine areas of special weakness in his written examination performances. This oral examination is entirely separate from the later oral defense of dissertation.

Tools of Research

Two tools of research are required to be certified through proficiency examinations or by completing specific courses prescribed by the department which administers the particular tool. S.G.P.A. students must certify one tool, at least, before admission to comprehensive examinations is granted. The other must be certified before final approval of the dissertation proposal.

For the Ph.D. in Government, statistics is presumptively required as one of the two tools. The other tool may be a foreign language, mathematics, or educational and psychological tests and measurements.

For Ph.D. candidates in Public Administration or in Public Administration: Technology of Management, statistics and mathematics are presumptively required as the two tools.

In a rare case for strong reason, the Dean may approve a substitution for the presumptive tool requirements of statistics or mathematics.

Dissertation and Oral Examination

A dissertation, accomplished under registration for twelve semester hours in one of the doctoral dissertation seminars listed in the graduate curriculum. This requirement is fulfilled by the completion of an acceptable dissertation and by successful defense of the dissertation in a final oral examination. The basic dissertational standard is that of a high quality of original research in a subject which is directly relevant to the student's doctoral program emphasis.

The subject of the dissertation normally will be expected to lie within the boundaries of one of the candidate's four comprehensive examination fields. At the discretion of the can-

didate's dissertation committee, the oral examination may include the comprehensive field in which the dissertation is written or the candidate's total graduate program.

Part-time doctoral students are strongly urged, if such is at all possible, to plan to spend at least one semester in full-time residence at the stage of development of the dissertation proposal and the initiation of the research.

Comprehensive Examination Fields

These fields are listed here by number and title only. The details and descriptions of the related courses are given in the full graduate curriculum at pages 185 and 227. In this listing, certain fields are marked as specific requirements for particular degree programs. The full details of the student's patterns of requirements and choices are available from the Dean of S.G.P.A.

Politics and Government

Comprehensive examination fields in the curricular area of Politics and Government: (M=Master's. D=Ph.D.)

53.60M-D—Political Philosophy (53.60D required for Ph.D. in Government)

53.62M-D—Science, Technology, and Government (53.62D required for Ph.D. in Public Administration: Technology of Management)

53.63M-D—Comparative Government and Politics

53.70-53.77 (all M-D): These are a group of regional specializations in comparative government which are available only to SIS or other non-SGPA graduate students. For identification purposes, the full style of each of these titles will be: 53.70—M or D: Comparative Government: (Region)

53.7 —Europe-USSR

53.71—Middle East and North Africa

53.72—China-Far East

53.73—South-Southeast Asia

53.74—Latin America

53.77—Africa

53.65M-D—The American Government System

53.66M-D—Political Dynamics

53.67M-D—Public Law

53.68M-D—Urban Affairs (53.68M required for M.P.A. in Urban Affairs)

53.69M-D—Government and the Social Order

Public Administration and Management

Comprehensive Examination fields in the curricular area of Public Administration and Management: (M=Master's. D=Ph.D.)

54.60M-D—The Governmental Administrative Establishment (Required for Ph.D. in Public Administration)

54.61M-D—The Management of the Governmental Administrative Establishment. (54.61M is required for the M.P.A. and the M.A. in Public Administration. 54.61D is required for the Ph.D. in Public Administration and in Public Administration: Technology of Management.)

54.62M —Urban Planning and Development (a special field, available only at the Master's level as an option for the M.P.A. in Urban Affairs)

54.64M-D—Governmental Financial Policy and Program

54.65M-D—Public Personnel Administration

(54.64 and 54.65 will normally be approved only for the M.P.A. or the M.P.A.: Technology of Management. They are continued at the doctoral level primarily as accommodation of elections which have previously been approved. Future approval at the doctoral level is improbable, although not altogether impossible for highly exceptional cases.)

54.67M-D—One specialized line or staff function (Available only with special approval, and only if adequate faculty capability for direction of study and research in the subject can be found within the SGPA, The American University, or the arrangements of the Consortium of Universities.)

54.68M —Correctional Administration (A special field, administered by the Institute for

Correctional Administration, for students in the C.C.E. program for M.S. in Correctional Administration. Consult Mr. Howard Gill, College of Continuing Education).

Technology of Management

These comprehensive examination fields are listed under the Center for Technology and Administration section of this catalog. (See page 150.)

Health, Physical Education and Recreation

Correspondence Directory: ROBERT H. FRAILEY, *Chairman*

Fields of Study

Health Education, Physical Education, Recreation, Dance, Athletic Coaching.

Undergraduate Degree Bachelor of Arts

University Requirements

See page 23.

Note: Consult the department concerning the physical education requirements.

It is recommended that the following courses be used to meet the science and mathematics requirements:

15.100 Science of Chemistry (3)

9.110 and 9.111 General Biology I and II (4-4)

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University. At the intermediate level, students elect "Intermediate Reading" (3).

Departmental Requirements

MAJOR COURSES:

Core courses (38 hours)

49.111 (Men) Football-Wrestling (2)

49.111 (Women) Field Hockey-Modern Dance (2)

49.112 Soccer-Swimming (2)

49.113 (Men) Basketball-Baseball (2)

49.113 (Women) Basketball-Softball (2)

49.114 Gymnastics-Track and Field (2)

49.121 History and Principles of Health, Physical Education and Recreation (3)

49.205 The Teaching of Individual, Dual and Recreational Activities (1 cr: major enrolls for minimum of 4 cr)

49.220 First Aid and Athletic Injuries (2)

49.310 Elementary School Rhythmic Activities (3)

49.320 Methods and Materials in Physical Education (3)

49.335 Elementary School Play and Games (3)

49.421 Organization and Administration of Health, Physical Education, and Athletics (3)

49.424 Kinesiology and Physiology of Exercises (3)

49.500 Measurement and Evaluation of Health, Physical Education and Recreation (3)

49.501 Health Education (3)

AREAS OF SPECIALIZATION:

The Dance (10 hours)

- 49.210 Workshop in Dance Production (1)
- 49.325 Rhythms and Accompaniment (2)
- 49.326 History and Philosophy of Dance (3)
- 49.400 Advanced Methods of Teaching Modern Dance (1)
- 49.401 Composition of Dance (3)

Athletic Coaching (19 hours)

For men majoring in other academic fields who desire coaching qualifications 49.111, 49.112, 49.113, 49.114 (2 each).

- 49.220 First Aid and Athletic Injuries (2)
 - 49.324 Principles and Psychology of Coaching (3)
 - 49.421 Organization and Administration of Health, Physical Education, and Athletics (3)
 - 49.424 Kinesiology and Physiology of Exercise (3)
- Participation in one or more sports (see department adviser)

Elementary Physical Education

Students interested in teaching at the Elementary level consult Department.

RELATED COURSES (25-28 hours)

- 9.222-9.223 Human Anatomy and Physiology I and II (4, 4)
- 21.500 Foundations of Education (6)
- 57.400 Child Psychology (3)
- or 57.401 Adolescent Psychology (3)
- 21.445 Student Teaching (9-12)

TOOL COURSE (3 hours)

- 67.110 Public Speaking (3)

Graduate Studies

The Department of Health, Physical Education and Recreation offers a specialization in Health, and Physical Education through the established Master of Arts and Master of Education programs in the Department of Education. Students electing this specialization should take as part of the 15 required hours 49.500 Measurement and Evaluation in Health and Physical Education (3) in place of 21.504 Evaluation of Student Progress (3); and must elect 49.001 Health and Physical Education as one of their two required comprehensive examination fields.

Prerequisites

See prerequisites under Department of Education.

Comprehensive Examination Field

- 49.001 Health and Physical Education

History

Correspondence Directory: DAVID J. BRANDENBURG, *Chairman*

Fields of Study

United States, Europe, Latin America.

Degree Programs

Bachelor of Arts

University Requirement: See page 23.

* History majors may fulfill either the Humanities or Social Sciences University Requirement by the hours in the major. History credits may not, however, be counted for both Humanities and Social Sciences. Further, regardless of whether History is counted as a Humanity or as a Social Science for distribution purposes, all History majors must complete at least six hours of course work in humanities other than History and at least six hours of course work in social sciences other than history.

Language Requirement: See page 26.

Departmental Requirements

MAJOR COURSES (30 hours).

- a) Ancient World (any period) or Medieval History (3)
- b) Historiography (3)
- c) Senior Seminar (3)
- d) Other Courses (21)

U.S. History I and II, Europe I and II, and Freshman and Sophomore Seminars are recommended.

Related Courses

12 hours, 300-level or above. The related field must be within one of the choices indicated below:

- a) A Social Science other than History
- b) A Humanity other than History
- c) Distributed Social Sciences
- d) Distributed Humanities
- e) Distributed Natural Sciences and Math or one field of Science or Math.

Note: The grade of C or better is required in all related courses.

To be accepted as a History major, the student must have a one-point average, and six hours of B in History.

To receive the B.A. in History, students must take at least 15 hours of history courses at the University.

Departmental Honors

To be eligible for the honors program a student must have completed at least 60 hours of work with a minimum cumulative index of 2.00 and at least 15 hours in history courses, completed with a minimum cumulative of 2.2.

Selection

In addition to meeting the above requirements, the student must be recommended by the Department faculty for selection and approved by the Chairman of the Department.

Studies

The nature of the project will depend on the student's interests and capabilities and the willingness of an instructor to undertake the project. Normally, the potential honor student will first register for a reading project; if successful in this project, he will be encouraged to undertake a research project. Departmental honors usually will be assigned only on the basis of completion of both the reading and research projects with grades of A.

Graduate Degrees

Master of Arts

Admission

See page 16.

Admission to a graduate program is at the discretion of a departmental committee within the frame of reference of University and College of Arts and Sciences standards (see page 26). In general, a better than 2.0 index in the undergraduate major and 1.75 overall index (on a three-point basis) is required.

Other admissions requirements: evidence of a substantial beginning in at least one foreign language; the Graduate Record Examination; and two letters of recommendation from recent professors.

Full-time students must be prepared to finish the degree in one calendar year from time of entry (course registration) into the program.

Admission to the M.A. program does not insure admission to the Ph.D. program. In general, admission, especially for full-time students, is for the Fall semester. Entry into a graduate program in February, while possible in some cases, will cause scheduling and time-table difficulties.

A graduate degree in history cannot be achieved in summer sessions alone.

Provisional admission may be extended in certain cases where the above standards are not fully met. In order to gain full admission status, the student admitted provisionally must demonstrate to the satisfaction of the Department an ability to pursue a degree program with reasonable promise of success. Upon completion of 12 credit hours of courses taken for letter-grade credit he must then apply for full admission.

Course Requirements

Minimum of 30 hours of approved graduate course work distributed as follows:

(1) two research seminars (6 hours) and two colloquia, if available, or suitable substitute (6 hours), all taken for letter-grade credit;

(2) six other courses (18 hours) as directed by the student's adviser. If in the Department of History, some of these six courses may on recommendation of the adviser be taken for "S" credit. Part-time students shall take a minimum of 12 hours of these 18 hours for letter-grade credit. Courses taken outside the Department shall be for letter-grade credit.

Comprehensive Examinations

One six-hour written comprehensive examination in one of the following "general" fields:

History of Modern Western Europe (since the 15th century),

U.S. History (including colonial),

Russian and Eastern European History,

Latin American History.

An additional oral examination may be scheduled when further evaluation is necessary. In case of failure, a re-examination is subject to the discretion of the Department.

Comprehensive examinations are given in September and May.

Other Requirements

A background in one foreign language (German, Russian, French or Spanish) consisting of, or equivalent to, an intermediate-level (second year) college language course. Two substantial research papers written in research seminars, each with the grade of B or better, or if necessary or desired, a thesis.

The minimum cumulative grade average required to maintain good standing in the M.A. program is B, that is, above B minus with instructors' plus and minus notations taken into account.

Timetable

Full-time students should complete all requirements for the M.A. in two semesters. A summer's grace is allowed to accommodate unusual circumstances. Part-time students should complete all requirements for the M.A. within three calendar years after entering the program.

Doctor of Philosophy

Admission

See page 16.

Admission to the Ph.D. program is at the discretion of a departmental committee and is contingent upon the student's having an M.A. degree or its equivalent in history or in a related field (such as political science, economics, anthropology, sociology, literature, art, etc.) with strength shown in history either on the undergraduate or graduate level. Completion of the Master's degree does not insure admission to the Ph.D. program.

Full-time Ph.D. students must be prepared to complete all course, language, and comprehensive examination requirements by the end of the second academic year after entry into the Ph.D. program. In general, admission, especially, for full-time students, is for the fall semester. Entry into a graduate program in February, while possible in some cases, will cause scheduling and time-table difficulties.

A graduate degree in history cannot be achieved in summer sessions alone.

Provisional admission may be extended in certain cases where the above standards for admission are not fully met. (See description in paragraph 1 above for further details).

Course Requirements

A minimum of 42 hours of approved course work beyond the M.A. is required. At least 30 of the 42 hours must be completed in residence at The American University. Course work, over and above the 30 hours taken for the M.A., shall include but is not limited to the following:

Two research seminars, and two colloquia, if available or suitable substitutes for letter-grade credit (12 hours);

Six other courses selected by the student and his adviser, taken for "S" credit or for letter-grade credit, according to Departmental advice;

12 hours of dissertation seminar.

Courses taken outside of the Department of History shall be for letter-grade credit. Part-time students shall take a minimum of 24 of the 42 hours required for letter-grade credit.

Comprehensive Examinations

Four examinations which may include the M.A. examination taken at The American University on recommendation of the Department. The four examination fields are as follows:

- (1) the "general" examination field;
- (2) a specialized field in history outside the geographical area of the "general" field;
- (3) a related field outside history, or a specialized field in history;
- (4) another specialized field—the major field—in history, within the area of the "general" field and within which field the student will write his dissertation. This field will be tested by oral examination.

Comprehensive fields will be chosen from the standard list printed below.

Oral examinations will be given in the "general" examination field when further evaluation is necessary, and in the dissertation field. In case of failure, a re-examination is subject to the discretion of the Department.

Other Requirements

A background in two foreign languages (German, Russian, French, or Spanish) consisting of, or equivalent to, intermediate level (second year) college language courses. Students concentrating in a field in which greater facility in one or more foreign languages is necessary for professional competence will be required to demonstrate a higher level of proficiency than is provided for by the background requirements.

All language requirements must be met before the comprehensive examinations. The minimum cumulative grade average required to maintain good standing in the Ph.D. program is B, that is, above B minus with the instructors' minus and plus notations taken into account.

Dissertation

An oral defense of dissertation is required.

Timetable

Full-time students should finish all requirements for the Ph.D. within three calendar years after entering the Ph.D. program, or four years after beginning graduate work. Part-time students should complete all requirements within five calendar years after entering the Ph.D. program. All graduate students must be registered continuously, except for summer. (See the Required Graduate Study Registration elsewhere in this Catalog.)

Available Comprehensive Examination Fields

GENERAL FIELDS

- 29.001 History of Modern Western Europe
- 29.002 History of the United States
- 29.003 History of Latin America
- 29.004 History of Russia and Eastern Europe

SPECIALIZED FIELDS

- 29.010 History of Germany
- 29.011 History of France

- 29.012 History of England
- 29.013 History of Russia
- 29.014 History of the Middle East
- 29.015 History of China
- 29.016 History of Japan
- 29.017 History of the South and Southeast Asia
- 29.018 Renaissance and Reformation to 1609
- 29.18A Early Modern Europe (1609 to 1763)
- 29.019 The French Revolution and Napoleon (1763-1814)
- 29.020 History of Europe (1815-1914)
- 29.021 History of Europe since 1914
- 29.022 The U.S. Colonial Period, Revolution and Constitution
- 29.023 The Middle Period of U.S. History (1789-1877)
- 29.025 Recent United States History (since 1877)
- 29.026 The Colonial Origins of Latin America and the Achievement of Independence
- 29.027 Latin America since the Mid-19th Century
- 29.028 European Diplomatic History
- 29.029 European Intellectual History
- 29.030 U.S. Intellectual History
- 29.031 U.S. Diplomatic History
- 29.032 Latin American Intellectual History
- 29.033 Latin American Diplomatic History
- 29.041 U.S. Economic History
- 29.042 European Economic History
- 29.057 Archival Administration

Note: Fields in economic history are currently listed by the Department of Economics. Ph.D. candidates in History may choose one of these fields for comprehensive examination purposes.

Inter-Departmental Science

Correspondence Directory: LEO SCHUBERT, *Coordinator* (Department of Chemistry)

Faculties of the Departments of Biology, Chemistry, Mathematics, and Physics.

Fields of Study

Biology, Chemistry, Mathematics, Physics.

Undergraduate Degree

Bachelor of Science in Distributed Science

The University offers a program leading to the degree of Bachelor of Science with a major in Distributed Sciences for students who plan to teach the natural sciences in secondary schools or who wish to receive a broader background in science at the undergraduate level than is afforded by the usual Bachelor of Science degree. The degree is also planned to meet pre-medical and pre-dental requirements of most medical and dental schools.

Students majoring in distributed sciences select their major courses primarily from offerings in the fields of biology, chemistry, mathematics, and physics. Students interested in a program in distributed sciences should consult the chairman of the science department in which they select the 24 hours of major courses. The chairman of that department will assign an adviser early in the program. A minimum of 60 approved hours in the combined natural science/mathematics major and related courses must be completed to qualify for the degree of Bachelor of Science in Distributed Sciences.

University Requirements

See page 23.

Note: Science and Mathematics are normally satisfied by major and related requirements. Consult division chairman or appropriate department.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Departmental Requirements

MAJOR COURSES (24 hours)

At least 24 hours in one of the following: Biology, Chemistry, Mathematics or Physics.

RELATED COURSES (36 hours)

Twelve hours in one additional science and eight hours in each of two additional sciences. (Where mathematics is selected certain courses are specified.) Eight additional hours needed to satisfy the university science requirements.

TOOL COURSES (6 hours)

41.110 Fundamentals of Mathematics

41.111 Analytic Geometry and Introduction to Calculus

Electives

Enough to complete minimum of 120 hours plus non-credit physical education are required.

Master of Science in Science Teaching

The degree of M.S.S.T. is administered jointly in the College of Arts and Sciences by the Departments of Science, Mathematics and Education. Students interested in the M.S.S.T. program should consult the chairman of the science department in which they take their major. The chairman of that department will assign an adviser.

Persons taking the degree in Biology must consult the Department Chairman well before applying for the comprehensive examination.

See also the section on the M.S.S.T. under the College of Arts and Sciences.

Course Requirements

Minimum of 30 hours of approved graduate work with six or more hours taken in the major field. The student's undergraduate and graduate courses in the major field must total a minimum of 32 credit hours. Other requirements include:

(a) a minimum of eight hours in a second science field.

(b) one year of college mathematics (algebra and analytic geometry or equivalent) taken either before entering the M.S.S.T. program or as non-credit courses along with the courses taken for graduate credit.

(c) a course in either history or philosophy of science (3), and

(d) six hours of graduate courses in education.

A limited number of courses (not to exceed 12 hours) from the .300 to .400 level may be used toward the requirements of this degree. These courses may be selected from:

9.321	15.320-321	27.341-342	41.474
9.332	15.350-351	41.310	51.330-331
9.335	15.400-401	41.312	51.410
9.341	15.460-461	41.321	51.450-451
9.356	27.321-322	41.322	
15.310-311	27.331-332	41.440	

Written Comprehensive Examinations

Two, including one field in natural sciences and one in education.

International Service

Correspondence Directory: FREDERICK J. PIOTROW, *Dean*
THEODORE A. COULOUMBIS, *Associate Dean*
JAMES R. JOSE, *Assistant Dean*

Fields of Study

International organization and law, contemporary international relations, theories of international relations, international relations of an area, area studies (Western Europe, Middle East, Eastern Europe and U.S.S.R., South and Southeast Asia, Far East, Latin America), international communication, national security policy, and the United Nations.

Undergraduate Degrees

The undergraduate program of the School has been designed to offer the undergraduate student a broad foundation in the liberal arts as well as preparation for the study of international relations. The School offers the Bachelor of Arts degree with a major in International Studies. In addition, a joint degree program is offered in languages and area studies, wherein students are concurrently enrolled in the School and the Department of Languages and Linguistics of the College of Arts and Sciences.

Bachelor of Arts

IN INTERNATIONAL STUDIES

A single flexible major in international studies will be in effect for all new students who will be entering and exclusively enrolled in the School beginning in the fall semester of 1969. All courses for the major (exclusive of 33.200 Introduction to World Politics I) and the related interdisciplinary studies are to be selected in consultation with the student's academic adviser, with individual programs designed to meet the needs and interests and challenge the talents of each student. This major is subject to modification after 1969-1970 in order to reflect any alterations in the curriculum of the School and particularly when the University moves to the new course-base system of academic credit.

Proficiency in Communications

- English Composition & Reading I & II (23.100, 23.101)—6 hours (University Requirement).
- Proficiency in written English, to be considered a professional skill: May be demonstrated in one of the following: Senior thesis or paper written in a senior SIS course, seminar or directed individual study.
- Modern Language: Students are required to attain facility in one modern language through the intermediate level in addition to English. This requirement may be satisfied either by examination (administered by the Department of Languages & Linguistics of the College of Arts and Sciences) OR by four semesters of course work (elementary and intermediate).
- All students majoring in international studies are urged (but not required) to acquire some skill in statistics, data processing and/or knowledge of new tools for research and analysis in international studies, including quantitative analysis.

Major Courses

30 semester hours required in SIS courses which will change to 32 hours when the University changes to the four semester hour course base, excluding American Civilization, Western Tradition and Introduction to the Non-Western world; which may be included in the related interdisciplinary studies below.

33.200 Introduction to World Politics I: The only required course in the major, it is considered a prerequisite to other SIS courses.

The remaining 27 hours for the major will be selected from the SIS offerings according to the academic interests and professional perspectives of the student in consultation with

the student's academic adviser. Letter grades are required for all courses counted in the international studies major (the pass/fail option does not apply to major courses).

Related Interdisciplinary Studies

30 semester hours required which will change to 32 hours when the University changes to the four semester hour course base. It is recommended that students choose from at least two of the following fields and it is further recommended that each student accumulate at least 12 hours of course work in one of these fields: anthropology, communications, economics, foreign area studies (non-SIS), government and public administration, history, psychology, sociology, technology and administration.

NOTE: Included in this category are courses taught in SIS in American Civilization, Western Tradition and Introduction to the Non-Western World.

Graduate Record Examination

Students may take the Aptitude Section of the Graduate Record Examination during their senior year. The examination is administered by the University Guidance and Testing Office during the fall semester. Students who desire to take other sections of the Graduate Record Examination must make their own arrangements with the Educational Testing Service, Princeton, New Jersey.

IN LANGUAGES AND AREA STUDIES

The degree program in languages and area studies is offered for the following areas: (A) French or German language—Western Europe; (B) Russian language—Soviet Union; (C) Spanish language—Latin America; (D) Czech or Hungarian—Eastern Europe; (E) Hindi or Indonesian, Thai, Vietnamese language—South and Southeast Asia; (F) Chinese or Japanese language—Far East. These programs are offered jointly by the School of International Service and the Department of Languages and Linguistics. See also page 125 for further details.

PROGRAMS (A), (B), (C), and (D)

Prerequisite

Two years of four-meetings-per-week of an appropriate language.

Required Courses

35 hours in the following course work:

Advanced Language I and II (4-4)

Advanced Reading and Composition I and II (3-3)

Civilization (of area) I and II (3-3)

Introduction to World Politics I and II (3-3)

Three approved area subject courses, seminars or colloquia (3-3-3)

Related Courses

12 hours in the following fields

Second language of the area

International relations of the area

Government and Politics

Literature of the area

History of the area

Linguistics

Geography of the area

Economic problems of the area

Anthropology of the area

Examination

Oral comprehensive examination to test language competence and knowledge of the area. Graduate Record Examination is optional.

Electives

Completion of a minimum of 120 hours plus non-credit physical education.

PPROGRAMS (E) and (F)**Required Courses**

36 hours in the following course work:

- Elementary Language I and II (4-4)
- Intermediate Language I and II (4-4)
- Advanced Language I and II (4-4)
- Introduction to World Politics I and II (3-3)
- Two approved area subject courses or seminars (3-3)

Related Courses

12 hours in the following fields

- Second language of the area
- Government and Politics
- Intermediate and/or Advanced year of a European language
- International relations of the area
- History of the area
- Linguistics
- Geography of the area
- Economics of an area
- Anthropology of the area

Examination

Oral comprehensive examination to test language competence and knowledge of the area. Graduate Record Examination is optional.

Electives

Completion of a minimum of 120 hours plus non-credit physical education.

Graduate Degrees

The School of International Service is committed to promoting high scholarly achievement in its graduate programs. Its faculty strives to imbue the graduate student body with superior standards of scholarship and research. The aim is to give students a sound substantive preparation and a thorough grounding in the methodology of each field of concentration at the graduate level. An exhaustive review of graduate program offerings and curriculum began in January 1969. This could result in substantial modification of existing requirements and electives.

Admission (See also page 16.)

Admission to graduate study in the School of International Service is restricted to students who have earned at least a "B" average in a relevant undergraduate major as well as a cumulative "B" average in all undergraduate work at an accredited institution. A relevant major is defined as a minimum of 24 hours in subjects appropriate to the degree program selected. All applicants for the master's degree programs are required to take the Aptitude Section of the Graduate Record Examination. Students who fall short of the 24 hours of relevant graduate or undergraduate work will be expected to complete additional course work at The American University, to be determined at admission or upon selection of a major program.

Applicants for the Ph.D. degree must possess a master's degree, or its equivalent, earned in a relevant discipline from an accredited institution with a cumulative average in all graduate courses of substantially higher than "B." Applicants must supply at least two letters of reference from persons capable of evaluating their graduate course work.

Full-time and part-time graduate students, whether aiming for the master's or doctoral degree, will be admitted within the educational capacity of the School of International Service. Preference is given to those applications received before March 1st for summer and fall admission, and before December 1st for spring admission.

Advancement to Candidacy

Admission to a graduate program does not entail automatic advancement to candidacy for a graduate degree. Each is a separate step, and advancement is a discretionary act which takes place upon completion of specified requirements.

At the time of advancement the student selects, in consultation with his program adviser, his comprehensive examination fields and the required tool—or tools—of research. He then files the appropriate form with the Office of the Dean.

The candidate applies separately for his comprehensive examinations (before the deadline dates announced in the *Schedule of Classes Bulletin*), filing an appropriate form with the Dean of Graduate Studies after securing the written approval of the Dean of the School. Students must be advanced to candidacy before they can take comprehensive examinations. The student should apply for advancement to candidacy immediately before the beginning of the semester in which comprehensive examinations will be taken, or sooner if the student is eligible according to the requirements listed in the following three paragraphs.

Master's degree students may apply for advancement to candidacy when they have completed between 12 and 18 hours of graduate work at The American University (with an average of "B" or better), have completed all deficiencies specified at the time of admission, and have made up all incomplete course work. If at the end of 18 hours, or at any time thereafter, the student's average is less than "B," he is subject to dismissal from the University.

Students may transfer up to six hours of graduate work taken at another approved institution provided that the credits are relevant to the student's program and provided that a "B" or better was earned for each course.

Doctoral degree students who have completed 30 hours of graduate work, including the master's program if this degree has been secured, and at least 15 additional hours *in residence* at the University, may apply for advancement to candidacy if their grade average in all graduate work taken at the University is better than "B." Application *must* be made not later than the end of the semester in which 18 semester hours of graduate work will have been completed in residence at the University, subsequent to admission to the doctoral program. If a student is ineligible for advancement at that time, he forfeits his status as a doctoral student. By the same token he forfeits his status if the grade average falls below the minimum requirement at any time thereafter.

If the master's degree has been received at the University, a doctoral degree student may apply for advancement to candidacy after completing 12 graduate hours beyond the master's degree. However, he *must* apply no later than the end of the semester in which 18 semester hours of graduate work will have been completed beyond the master's degree.

Transfer Credit

Transfer credit for prior work taken at other institutions is usually granted at the time of advancement to candidacy. In order to be transferred, the credits earned elsewhere must be graduate level courses in which a grade of "B" or better was earned, taken after the student received the Bachelor's degree, and they must be judged appropriate to the student's degree program. Official transcripts must be provided to support requests for acceptance of transfer credit.

Comprehensive Examination Fields

The School of International Service offers the following fields for comprehensive examinations at the master's and doctoral levels. All applicants for the examination must use the following list regardless of previous admission dates or advancement to candidacy:

- 33.001 International Law
- 33.002 International Organization
- 33.003 Theories of International Relations and Comparative Politics
- 33.004 National Security Policy (M.A. and M.I.S. candidates only)
- 33.010 Foreign Policy Analysis: The United States
- 33.011 Foreign Policy Analysis: Western Europe
- 33.12A Foreign Policy Analysis: Soviet Union
- 33.12B Foreign Policy Analysis: Eastern Europe
- 33.013 Foreign Policy Analysis: Middle East and North Africa
- 33.014 Foreign Policy Analysis: Africa
- 33.015 Foreign Policy Analysis: Latin America
- 33.016 Foreign Policy Analysis: Far East

- 33.017 Foreign Policy Analysis: South and Southeast Asia
- 33.021 Area Comprehensive: Western Europe
- 33.022 Area Comprehensive: Soviet Union and Eastern Europe
- 33.023 Area Comprehensive: Middle East and North Africa
- 33.024 Area Comprehensive: Africa
- 33.025 Area Comprehensive: Latin America
- 33.026 Area Comprehensive: Far East
- 33.027 Area Comprehensive: South and Southeast Asia

Note: At the option of the student, comprehensive examinations may be taken during one examination session or spread over two consecutive examination sessions.

Language Requirement for all Graduate Degrees

All candidates for the M.A. in International Studies and the Master of International Service must pass a tool of research examination in one modern foreign language. Doctoral candidates must pass a tool examination in at least one modern foreign language. The Ph.D. language examination may be somewhat more difficult in content and wording than the examination for the master's degree, but the format of the examination is similar.

The examinations consist of a written translation into English of a foreign language text taken from the area of the student's specialization. Time allotted is one hour. The use of a dictionary is permitted.

Before the Department of Languages and Linguistics can administer the tool examination, the candidate must fill out the "Approval of a Tool of Research" form and receive approval from the Dean of the School for the language he has selected. The student may select only those foreign languages for which an examiner is available. If the Department of Languages does not have a qualified examiner, the school may solicit the services of an outsider.

Both master's and Ph.D. candidates who have a native or near native proficiency in the foreign language approved as a tool are exempt from the tool examination. Such exemption must be certified by the Department of Languages and Linguistics.

The language requirement for all master's degrees will be considered met for candidates who have attained a "3-level" of proficiency in both speaking and reading a modern foreign language, as certified by the Foreign Service Institute of the Department of State; doctoral candidates must have attained a "4-level" of proficiency in speaking and reading a modern foreign language, as certified by the Foreign Service Institute. Tests conducted more than three years prior to the date on which the candidate passes his comprehensive examinations are not acceptable.

Doctoral candidates who have completed the second semester of a European language at the advanced level or the second semester of a non-European language at the intermediate level within the three years prior to the date on which the candidate passes his comprehensive examinations, with a grade of "B" or better at a recognized institution, may be exempt from the tool examination.

With special approval of the Dean of the School and the appropriate tool examiner, the results of tool examinations passed at other institutions within the three years prior to certified completion of the comprehensive examinations may be accepted as fulfillment of the tool requirement. Documents certifying such results must be submitted.

Master's candidates who have completed the second semester of the intermediate level in a European language or the second semester of intensive elementary work in a non-European language (at least 12 semester hours) within the two years prior to the date on which they passed their comprehensive examinations, with a grade of "B" or better at a recognized institution, may be exempt from the tool examination.

With special approval of the Dean of the School and the appropriate tool examiner, the results of tool examinations passed at other institutions within the two years prior to certified completion of comprehensive examinations may be accepted as fulfillment of the requirements. Documents certifying such results must be submitted.

Candidates for the Master of Arts in Languages and Area Studies satisfy their language tool of research requirements by virtue of successful completion of their degree programs.

Graduate Degree Programs Offered

Graduate degrees offered by the School of International Service are

- (1) the Master of Arts in International Studies,

- (2) the Master of Arts in Languages and Area Studies (Latin America, South and Southeast Asia, Soviet Union and Eastern Europe, and Western Europe),
- (3) the Master of International Service,
- (4) Master of Arts in Far East Area Studies, and
- (5) the Doctor of Philosophy in International Studies.

The Master of International Service (M.I.S.) is a professional degree designed to prepare students for careers both in the United States and abroad. The Master of Arts in International Studies is an academic degree designed to prepare students for subsequent doctoral work and for careers in teaching. The Master of Arts in Languages and Area Studies, which is administered jointly by the School of International Service and the Department of Languages and Linguistics of the College of Arts and Sciences, contains features which are both professional and academic in nature. It requires mastery of a language or languages of an area together with an integrated knowledge of the history, society, economy, and politics of that area. The Master of Arts in Far East Area Studies is administered by the School of International Service and is offered to those students who are interested in an integrated approach to the study of China, Japan, and Korea.

The degree program for the Doctor of Philosophy in International Studies emphasizes a disciplinary core while permitting the student considerable choice in selecting his fields of specialization. The degree draws its primary content from the fields of international relations and comparative politics. Inherent in its requirements is the recognition that the international behavior of nations is increasingly a product of their internal political dynamics. The degree in International Studies entails foreign area specialization—the exact amount depending upon the needs and objectives of the student. The School also encourages its Ph.D. candidates to develop competence in an additional discipline of the social sciences, such as history, economics, anthropology, or sociology.

Master of Arts

IN INTERNATIONAL STUDIES

Course Requirements

Required is a minimum of 30 hours of approved graduate credit, exclusive of deficiencies assessed at the time of admission, of which three to six may be in the Master's Thesis Seminar (33.797). All graduate students in International Studies are required to take International Relations and Comparative Politics: Methods and Approaches (33.610).

Language Requirement

Candidates must pass a tool of research examination in one modern foreign language. If they demonstrate proficiency in a language, they may, in addition, offer an approved quantitative tool. (For details of language requirements, see page 115.)

Comprehensive Examinations

Two written comprehensive examinations are required. (1) Theories of International Relations and Comparative Politics is required of all candidates for the Master of Arts in International Studies. (2) The second field is selected by the student in consultation with his faculty adviser and must be certified by the Dean. Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions. See page 114 for a list of approved comprehensive fields administered by the School of International Service.

Research Requirement

All candidates for this degree must write either a thesis, which may earn three or six semester-hour credits of the 30 required for the degree, or two substantial research papers (non-thesis option) prepared in conjunction with .600 or .700 level seminars, or two .690 independent research projects, or a combination of these. Students must apply for the non-thesis option in the office of the Dean at the beginning of the semester in which the projects are to be written.

Master of Arts

IN LANGUAGE AND AREA STUDIES

This degree is administered jointly with the Department of Languages and Linguistics of the College of Arts and Sciences (see page 124). The language-area groups currently authorized under the degree program are as follows:

- (A) French or German Language—Western Europe Area Studies
- (B) Russian Language—USSR Area Studies
- (C) Spanish Language—Latin American Area Studies
- (D) Czech or Hungarian—Eastern Europe Area Studies
- (E) Hindi, Indonesian, or Thai Language—South and Southeast Asia Area Studies

PROGRAMS (A), (B), (C) and (D)

Prerequisite

The Bachelor's degree or its equivalent is required. The student's background must have included three years of an appropriate language and one year (6 credits) of an area related discipline, such as history, politics, geography, etc.

Required Courses

A total of 30 hours of approved graduate work exclusive of deficiencies assessed at the time of admission is required:

- 12 hours in literature and/or area subject courses taught in a language of the area.
- 12 hours in area subject courses taught in English in the School of International Service, other schools and departments of The American University, or the Consortium of Universities.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these. Students must apply for the non-thesis option in the office of the Dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Each candidate must pass an oral examination to determine his readiness for written comprehensive examinations.

Comprehensive Examinations

Candidates must take written examinations in two fields selected in consultation with a faculty adviser and certified by the Dean of the School of International Service. Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions.

PROGRAM (E)

Prerequisites

The Bachelor's degree or its equivalent is required. The student's background must have included at least two years of an appropriate language and one year (6 credits) of an area related discipline, such as history, politics, geography, etc.

Required Courses

6 hours in literature and/or area subject courses taught in a language of the area required.

18 hours in area subject courses (taught in English) in the School of International Service, in other schools and departments of The American University, or in the Consortium of Universities are required. With special permission, up to 6 hours may be earned by taking the third (Advanced) year of an appropriate area language.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these. Students must apply for the non-thesis option in the office of the Dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Each candidate must pass an oral examination to determine his readiness for written comprehensive examinations.

Comprehensive Examinations

Candidates must take written examinations in two fields selected in consultation with a faculty adviser and certified by the Dean of the School of International Service.

Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions.

Master of Arts**IN FAR EAST AREA STUDIES****Course Requirements**

Minimum of 30 semester hours of approved graduate work, three to six of which may be in Master's Thesis Seminar: Area Studies (33.797).

Language Requirement

(See page 114.)

Comprehensive Examinations

Written comprehensive examinations in two fields approved in consultation with the student's adviser and the Dean are required:

a) a general comprehensive in the area (successful completion of the final examination in the integrated area seminar will be accepted in lieu of the area comprehensive for those students who have taken both semesters of the seminar and who are candidates for the area studies degree. To qualify for this exemption, the final examination in the seminar must have been taken within one calendar year of the date of the other comprehensive examinations).

b) a special field within the area (e.g., cultural area analysis, economics, government, history, international relations, literature or certain other fields by petition).

These examinations are taken when the candidate has completed the course work for the degree or during the semester in which he is completing the course work. Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions.

Research Requirement

All candidates for this degree are required to write either a thesis credited from three to six semester hours within the 30 semester hours required for the degree, or two intensive research projects (non-thesis option) written in .600 or .700 level courses or seminars, or two .690 Independent Research Projects. Students must apply for the non-thesis option in the Office of the Dean at the beginning of the semester in which the projects are to be written.

Master of International Service**Prerequisites**

Students who have already completed satisfactorily the School's requirements for the Bachelor of Arts in International Service degree should be able to obtain the Master of International Service degree in one further academic year. Graduates of other colleges or universities are required to fulfill special requirements for the acceptance of equivalent courses taken at other schools, or to take courses at the University in lieu of those not approved as equivalent. Students who have not completed an undergraduate curriculum substantially similar to these requirements will normally require one and one-half years to obtain the degree. The M.I.S. is considered to be a terminal graduate program.

Language Requirement

Candidates for the M.I.S. degree must pass a tool of research examination in one modern foreign language. The examination consists of a written translation.

Comprehensive Examinations

All graduate students in the international service program must take two written comprehensive examinations. Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions. See the list of the School's examinations on page 114. The examinations required for each professional option are as follows:

Foreign Service:

- A. One of the following:
 - International Organization
 - International Law
 - National Security Policy
 - International Economics
- B. Either Foreign Policy Analysis: The U.S. or U.S. Diplomatic History

Business Representation Overseas:

- A. International Economics or an approved field in Economics
- B. International Labor Problems or International Business

International Christian Service:

- A. An Area Comprehensive
- B. One of the following:
 - Cultural Analysis: (an area)
 - Economic Development Policy
 - International Law
 - Theories of International Relations and Comparative Politics
 - Foreign Policy Analysis of an area
 - Comparative Religion
 - World Christian Missions

Overseas Representation:

- A. An Area Comprehensive
- B. One of the following:
 - American Civilization
 - Foreign Policy Analysis: The U.S.
 - U.S. Diplomatic History
 - Cultural Analysis: (an area)
 - International Communications

Overseas and International Labor:

- A. International Labor Problems
- B. Labor in an area

Intelligence Research and Analysis:

- A. An Area Comprehensive
- B. National Security Policy

Research Requirement

All candidates for this degree are required to write either a thesis, which may earn three or six semester hours of the total hours required for the degree, or to write two substantial research papers (non-thesis option) prepared in conjunction with .600- or .700-level seminars, or to write two .690 independent research projects, or an approved combination of these. Students must apply for the non-thesis option in the office of the Dean of the School at the beginning of the semester in which the project is to be written. Students may petition the Committee on Academic Practices, with the approval of the appropriate program chairman, to have a single substantial research paper, written in conjunction with one of the professional seminars listed above, approved as satisfying the research requirement of the Master of International Service degree.

Course Requirements

All graduate students in the International Service Program are expected to complete all courses listed under one of the following professional options unless they are presented at admission or satisfied by courses included in the undergraduate program as equivalent.

FOREIGN SERVICE

Courses:

Problem Papers in American Diplomacy (33.563)—3 hours, with 3 additional hours optional.

American Foreign Policy (33.630), or U.S. Diplomatic History (29.552-553)—3 hours.

Seminar in American Civilization (33.604)—3 hours.

Political Theory (including treatment of theory or practice of communism)—3 hours.

International Economics: one course selected from International Economics or Economics Systems as offered by the Department of Economics—3 hours.

Note: Students who have not completed an acceptable course in international law or international organization at the time of admission will be expected to take international law or organization as a part of their graduate program.

Seminars

Students in the 45 hours program will be required to take 12 hours of seminar work from available offerings; those in the 30 hours program are required to take 6 hours. Integrated seminars may be taken for 6 hours credit in that semester in which history or international relations is included.

30 Hour Program One approved seminar (6 hours) or two or three seminars in related fields.

45 Hour Program 1) One approved 6 hours seminar plus either a second 6 hour seminar OR two 3 hour seminars in related fields, OR 2) One 3-6 hour area seminar (South and Southeast Asia—3 hours) plus another 6-9 seminar hours, the latter preferably not in the same geographical area as the 3-6 hour seminar.

BUSINESS REPRESENTATION OVERSEAS

Basic Courses

Students must complete 24 hours of courses required in the undergraduate Business Representation Overseas professional option unless previously taken or unless substitutes have been approved.

Advanced Courses

Seminar in International Business (11.726).

Current International Economic Problems (19.752)—3 hours.

Comparative Labor Relations (19.574)—3 hours.

Seminars

One approved seminar (6 hours) or two 3 hour seminars in related fields.

INTERNATIONAL CHRISTIAN SERVICE

Area Specialization

12 hours of integrated area seminars or comparable courses related to one of the following: Africa, Middle East and North Africa, Far East, South and Southeast Asia, Latin America, Western Europe. Students are also expected to include the cultural area analysis courses related to the area. Exceptions can be made in consideration of previous courses and overseas experience.

Courses

World Human Needs I and II (33.543-544)—6 hours.

Other courses may be selected from the catalogs of The American University, Wesley Theological Seminar, and the Consortium of Universities. Consultation is recommended for adapting the graduate program to the student's special interests and needs.

OVERSEAS REPRESENTATION

Courses

Seminar in American Civilization (33.604)—3 hours.

Area Specialization

6-12 hours. This requirement can be fulfilled by taking either integrated area seminars or courses or a combination of both in one of the following areas: Africa, Far East, Latin America, Middle East, South and Southeast Asia, Western Europe.

International Communication and Mass Media:

6 hours selected from the following

- Psychological & Cultural Bases of International Politics (75.633)
- Foundations of International Communications (75.639)
- International Political Communications (75.650)
- Information & Persuasion in Cross Cultural Contacts (75.638)
- Mass Media and Society (17.503)
- International Communication Systems (17.531)
- News Reporting (17.320)
- Feature Article Writing (17.325)

International Economics & Labor—3 hours elected from the following:

- International Economics: One course selected from International Economics or Economic Systems as offered by the Department of Economics
- World Labor and Contemporary International Politics I or II (33.541-542)
- History of International Labor Movement (75.672)
- Social and Labor Problems of Underdeveloped Areas (5.575)

Foreign Policy and Political Theory—6 hours elected from the following (including one course on the theory and practice of communism):

- History of U.S. Foreign Policy I or II (29.552-553)
- Foreign Policies of the Great Powers (33.302)
- American Foreign Policy (33.630)
- Contemporary International Politics (33.650)
- Values and Objectives in Foreign Policy (33.519)
- Political Theory of the Modern State (53.600)
- Marxism and Non-Marxist Socialism (53.603)
- Seminar in Sino-Soviet Relations (33.787)

OVERSEAS AND INTERNATIONAL LABOR

Basic Courses:

- World Political Geography (33.308)
- Political Thought of Modern State (53.600)
- International Economics (19.311) OR Comparative Economic Systems (19.558)
- Contemporary International Politics (33.4-650)
- International Relations of an Area

Labor Courses:

- Labor Statistics (19.575)
- Labor in Western Europe (33.645)
- History of the International Labor Movement (75.672)
- World Labor and Contemporary International Relations I, II (33.641-642)
- History of the U.S. Labor Movement (19.572)
- Intelligence Research and Analysis

Area Specialization: This requirement may be met by taking the integrated area seminar (both semesters) or through single courses totaling 12 hours.

Courses and Seminars:

- Seminar on National Security Policy (75.652)
- Workshop in Intelligence Research and Analysis (33.679)

Doctor of Philosophy

IN INTERNATIONAL STUDIES

Course Requirements

A minimum of 72 hours of graduate work is required, exclusive of deficiencies assessed at the time of admission, of which a total of up to twelve may be in the Doctoral Dissertation Seminar (33.799). A minimum of 18 hours must be in courses open only to graduate students (.600 and .700 level).

Tools of Research

Each candidate must satisfy examiners that he is proficient in two tools of research. One of these must be a modern foreign language; the second may be another foreign language, statistics, or another quantitative tool approved by the Dean. (For details of language requirements, see page 115.)

Comprehensive Examinations

Candidates must take written examinations in four fields as follows:

- A. Theories of International Relations and Comparative Politics
- B. One of the following:
 1. International Law
 2. International Organization
 3. Comparative Government
 4. International Economic Policy
 5. Economic Development Policy
 6. A core field, at the Ph.D. level, from anthropology, history, or sociology, provided that the examination is primarily theoretical and methodological in content.
- C. A field involving foreign policy analysis and focusing on foreign policy formulation in one of the following areas:
 - The United States
 - Western Europe
 - The Union of Soviet Socialist Republics
 - Eastern Europe
 - Middle East and North Africa
 - Latin America
 - Far East
 - South Asia and Southeast Asia
- D. A second field from B or C above or another field selected in consultation with a faculty adviser and certified by the Dean.

See page 114 for the School's list of examination fields. Other fields will be found in the appropriate school or departments in the *Catalog*. NOTE: Candidates who have received a double distinction on the same examination taken at the master's level at SIS may waive a comprehensive examination from categories B, C, and D. Field A, Theories of International Relations and Comparative Politics, may not be waived. See page 30 for details of the grading system.

Students are permitted to take all four examinations in one session or they may take two examinations in each of two consecutive sessions.

Research Requirement

All candidates for the degree must write a dissertation and defend it orally. During the oral examination, dissertation committee members may test the candidate's knowledge not only of the subject of the dissertation, but of related materials as well. All doctoral candidates must take the Doctoral Dissertation Seminar (33.799) for as many as twelve hours, which normally are deducted from the 72 graduate course hours required for the degree.

See page 31 for further details concerning the doctoral dissertation.

SPECIAL FEATURES OF THE SCHOOL

Business Council for International Understanding Training Program

In 1959 the Business Council for International Understanding selected the School as its Washington base for a program to provide additional preparation for business executives on

international assignment. The BCIU Training Program attempts to foster a better understanding of cross-cultural differences; of the social, political and economic makeup of the country and area; and of techniques which will make them more effective representatives of their respective companies and better interpreters of the United States. There is also intensive foreign language study for those who wish it. Through the facilities of the federal government, international organizations, and foreign embassies, the participants have access to private consultation on questions of special interest to them.

The Director of the Program from 1959 to 1968 was Dr. Harold M. Randall, former U.S. representative (with the personal rank of Ambassador) to the Inter-American Economic and Social Council for the Organization of American States. The present Director is Dr. Richard Butwell, Professor of Southeast Asian Studies and until June 1968, Director of the Patterson School of Diplomacy and International Commerce, the University of Kentucky.

For additional Program information write to the Office of the Director, BCIU Program, School of International Service, The American University, Washington, D.C. 20016.

Institute on the United States in World Affairs

The Institute is a summer program offered under the auspices of the School of International Service. Beginning in 1945, the Institute has met each summer at The American University. The goals of the Institute are: (a) to study the processes of formulation and methods of implementation of U.S. foreign policy, (b) to analyze the principal issues involved in the position of the U.S. in world affairs, (c) to provide tools for more advanced theoretical study and a capacity to deal more competently with international relations. The program involves a combination of lectures, seminars, readings, and field trips. The Director of the Institute is Dr. Abdul A. Said, Professor of International Relations. For additional information write to the Director, USWA, School of International Service, The American University, Washington, D.C. 20016.

Center for South and Southeast Asian Studies

The Center for South and Southeast Asian Studies, established in 1965 in the School of International Service, administers a program of studies and sponsors research on the countries in south and southeast Asia. The major disciplines in the social sciences and humanities are represented in the Center faculty or are under development as components of Center programs. Graduate students may take their degrees in the participating departments or in the School of International Service. At the M.A. level, students may work for a language and area degree; at the doctoral level, they may include a large amount of area work in their program for the Ph.D. in International Studies. Programs provide a combination of disciplinary, area, and language training. The resources of The American University in South and Southeast Asian Studies are supplemented by those of the Consortium of Universities.

The Director of the Center is Dr. Kenneth P. Landon, former International Relations Officer in Southeast Asian Affairs for the Department of State. For additional information write to the Office of the Director, Center for South and Southeast Asian Studies, School of International Service, The American University, Washington, D.C. 20016.

Courses of Study

The course offerings of the School are listed in the course section of this catalog under the following headings:

- American Civilization
- Area Studies
- International Relations
- World Human Needs

The courses (listed on page 201) are divided into the general categories which comprise the study of international relations and geographical areas in the School of International Service. The undergraduate courses precede the graduate courses of the School. Graduate seminars at the .700 level all carry prerequisites for admission, usually 9-12 hours of relevant courses. Such seminars may be taken more than once for credit provided that the seminar content is non-duplicating. Courses at the .600 and .700 level presuppose 9-12 hours of lower level courses as prerequisites or taken simultaneously with permission of the instructor. Courses and seminars taught at the .600 and .700 level are limited to graduate students who have been admitted to a degree program, and qualified seniors whose curriculum requires

such courses. Non-degree students may not enroll in these courses. Courses at the .500 level require a minimum of six hours of relevant undergraduate courses as prerequisites or permission of the instructor.

It is the policy of the School to schedule separate courses and seminars for graduates and undergraduates. The differentiation is one of level and depth rather than of substantive content. No student may receive credit for a graduate level course if the same course was taken for credit at the undergraduate level. Any course or seminar (except those at the .700 level) may be offered at the .400, .500, or .600 level.

Geographical Area Courses

The introductory courses comprise surveys of the history, government, geography, culture, institutions and foreign relations of the area. The integrated area seminars, which may carry up to 6 hours credit each semester with varying emphasis as appropriate, treat organically (a) the geography, demography, and ecology of the area, (b) social structure, (c) historical roots, (d) religion, (e) culture, (f) economy, (g) government and politics, (h) contemporary international politics, and (i) one or more studies of particular countries within the area. Opportunity is given in outside reading and research projects for the individual student to differentiate according to his own needs and interests, either on a subject matter basis or on a country basis.

Students taking the integrated area seminars may not obtain academic credit for overlapping courses in special aspects; if such courses have been taken, the integrated area seminar will carry correspondingly less credit. Full inquiry should be made prior to or at the time of registration.

All "700 level" area seminars ordinarily require as prerequisites either the relevant integrated area seminar or nine to twelve hours of course or seminar work in the field of the area. They may be taken twice for credit.

Students who are interested in area studies are urged to explore the offerings of other divisions of the University, such as the School of Government and Public Administration and Departments of Anthropology, Economics, English, History, and Sociology of the College of Arts and Sciences, for specialized courses in each of the geographical areas.

Languages and Linguistics

Correspondence Directory: VADIM MEDISH, *Chairman*

Fields of Study

French, German, Russian, Spanish, Czech, Hindi, Hungarian, Indonesian, Japanese, Modern Hebrew, Thai, Vietnamese.

Linguistics, French Literature, German Literature, Spanish Literature, Latin American Literature, Joint Area and Language Programs (with International Service)

Undergraduate Degrees

Bachelor of Arts

IN FRENCH, GERMAN, RUSSIAN, OR SPANISH

University Requirements

See page 23.

Note: Humanities normally are satisfied by major and related requirements. Consult the department.

Department Requirements

MAJOR COURSES (29-45 hours)

Completion of four-credit-hour per semester language courses is required on the elementary and intermediate level. Requirements of elementary and intermediate language course work may be waived if high school or other preparation warrants it.

Required also is a minimum of 29 hours of course work:

- Introduction to Language (3)
- Advanced Language I and II (4-4)
- Advanced Reading and Composition I and II (3-3)
- Civilization I and II (3-3)
- Pro-Seminar in Literature I and II (3-3)

RELATED COURSES

12 hours of related courses chosen from no more than two fields of approved concentration.

Departmental Examination

An oral comprehensive examination of approximately one hour's duration before an appointed committee is required.

Electives

To complete the minimum of 120 hours.

Bachelor of Arts

IN LANGUAGES AND AREA STUDIES

University Requirements

See page 23.

Note: Humanities normally are satisfied by major and related requirements. Consult the department.

Programs

These degree programs are administered jointly with the School of International Service. The language-area groups currently are: (a) Russian and U.S.S.R., (b) Spanish and Latin American, (c) French or German and Western Europe, (d) Czech or Hungarian and East Europe, (e) Hindi or Indonesian or Thai or Vietnamese or South and Southeast Asia, and (f) Chinese or Japanese and the Far East.

PROGRAMS (A), (B), (C), and (D):

Prerequisite

Two years of four meetings per week language of the area, or the equivalent.

Required Courses

35 hours in the following course work is required:

- Advanced Language I and II (4-4)
- Advanced Reading and Composition I and II (3-3)
- Civilization (of an Area) I and II (3-3)
- Introduction to World Politics I and II (3-3)
- Three approved area subject courses, seminars or colloquia (3-3-3)

Related Courses

12 hours from the following fields are required:

- | | |
|-------------------------------------|-------------------------------|
| Second language of the area | History of the area |
| International relations of the area | Linguistics of the area |
| Government and politics of the area | Geography of the area |
| Literature of the area | Economic problems of the area |
| | Anthropology of the area |

Examination

Oral comprehensive examination is required to test language competence and knowledge of the area.

Electives

Required are sufficient courses to complete a minimum of 120 hours.

PROGRAMS (E) and (F):**Required Courses**

36 hours in the following course work:

- Elementary Language I and II (4-4)
- Intermediate Language I and II (4-4)
- Advanced Language I and II (4-4)
- Introduction to World Politics I and II (3-3)
- Two approved area subject courses or seminars (3-3)

Related Courses

12 hours in the following fields:

- Intermediate and/or Advanced year of a European language
- Second language of the area
- Government and politics of the area
- International Relations of the area
- History of the area
- Linguistics of the area
- Geography of the area
- Economics of the area
- Anthropology of the area

Examination

Oral comprehensive examination is required to test language competence and knowledge of the area.

Electives

To complete a minimum of 120 hours.

Graduate Degrees

Master of Arts

IN FRENCH, GERMAN, RUSSIAN, SPANISH

Prerequisite

Proficiency in the appropriate language and literature demonstrated either by a B.A. degree in that field of study or equivalent preparation.

Course Requirements

Minimum of 30 hours of approved graduate work, including:

PROGRAM (A) WITH THESIS OPTION

- (1) Core Courses: At least 18 hours in the appropriate literature;
- (2) Six hours in M.A. Thesis Seminar(s), and oral defense of the Thesis;
- (3) No more than six hours of electives.

PROGRAM (B) WITH NON-THESIS OPTION

- (1) Core Courses: At least 18 hours in the appropriate literature;
- (2) Six hours in one of the following concentrations:
 - a. Teaching of a Foreign Language
 - b. Philology
 - c. Foreign Culture
 - d. Second Foreign Literature
 - e. Applied Linguistics
 - f. General Linguistics
- (3) No more than six hours of electives.

Other Requirements

A better-than-B average must be maintained within the 18 hours of core courses. Program (A) must include at least one 700-level research seminar.

Program (B) must include at least three 700-level research seminars. With special permission, one seminar may be replaced by an individual research project.

No more than three hours of electives may be taken in disciplines other than those offered by the Department of Languages and Linguistics.

Qualifying Examination

An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination.

Comprehensive Examination

A written comprehensive examination in the field of core courses is required.

Master of Arts in Languages and Area Studies

These degree programs are administered jointly with the School of International Service. The language-area groups currently authorized under the degree program are as follows:

- A. French or German Language—Western Europe Area Studies
- B. Russian Language—USSR Area Studies
- C. Spanish Language—Latin American Area Studies
- D. Czech or Hungarian Language—Eastern Europe Area Studies
- E. Hindi, Indonesian, Thai or Vietnamese Language—South and Southeast Asia Area Studies

PROGRAMS (A), (B), (C) and (D):

Prerequisites

The Bachelor's degree or its equivalent is required. The student's background must have included three years of an appropriate language and one year (6 credits) in an area-related discipline, such as history, politics, geography, etc.

Required Courses

A total of 30 hours of approved graduate work exclusive of deficiencies assessed at the time of admission is required:

12 hours in literature and/or area subject courses taught in a language of the area.

12 hours in area subject courses taught in English in the School of International Service, other schools and departments of The American University, or The Consortium of Universities.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these.

Students must apply for the non-thesis option in the office of the Dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Each candidate must pass an oral examination to determine his readiness for written comprehensive examinations. Consult the Department of Languages and Linguistics.

Comprehensive Examinations

Candidates must take written examination in fields selected in consultation with a faculty adviser and certified by the Dean of the School of International Service.

See the fields available on page 114.

PROGRAM (E):

Prerequisites

The Bachelor's degree or its equivalent is required. The student's background must have included at least two years of an appropriate language and one year (6 credits) in an area-related discipline, such as history, politics, geography, etc.

Required Courses

6 hours in literature and/or area subject courses taught in a language of the area are required.

18 hours in area subject courses (taught in English) in the School of International Service, in other schools and departments of The American University, or in the Consortium of Universities are required. With special permission, up to 6 hours may be earned by taking the third (Advanced) year of an appropriate area language.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these. Students must apply for the non-thesis option in the office of the Dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Each candidate must pass an oral examination to determine his readiness for written comprehensive examinations. Consult the Department of Languages and Linguistics.

Comprehensive Examinations

Candidates must take written examination in fields selected in consultation with a faculty adviser and certified by the Dean of the School of International Service.

Master of Arts in Linguistics

Prerequisite

B.A. or its equivalent. Proficiency in a modern foreign language equivalent to at least three college years.

Course Requirements

Minimum of 30 hours of approved graduate work, including:

PROGRAM (A) WITH THESIS OPTION

- (1) Core Courses: At least 15 hours in general linguistics;
- (2) Six hours in M.A. Thesis Seminar(s), and oral defense of the Thesis;
- (3) No more than *nine* hours of electives.

PROGRAM (B) WITH NON-THESIS OPTION

- (1) Core Courses: at least 15 hours in general linguistics;
- (2) *Nine* hours in one of the following concentrations:
 - (a) Applied Linguistics
 - (b) Formal Linguistics
 - (c) Philology
- (3) No more than *six* hours of electives.

Language Requirement

Proficiency in a modern foreign language must be demonstrated in one of the following ways:

- (1) Successful completion of a 500-700 level course conducted entirely, or in part, in a foreign language;
- (2) Successful completion of an individual research project dealing with a linguistic aspect of an approved language;
- (3) At least one semester of a Teaching Fellowship in a foreign language.

Note: Credit thus earned is applicable toward the student's course requirements. Waiver of the foreign language requirement may be granted to (a) foreign students, and (b) possessors of a B.A. or its equivalent in a foreign language.

Other Requirements

A better-than-B average must be maintained within the 15 hours of core courses.

Program "B" must include two 700-level seminars. With special permission, one seminar may be replaced by an individual research project.

No more than three hours of electives may be taken in disciplines other than those offered by the Department of Languages and Linguistics.

Qualifying Examination

An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination.

Comprehensive Examination

A written comprehensive examination in the field of core courses.

Written Comprehensive Examinations Fields

FIELDS ADMINISTERED BY THE DEPARTMENT OF LANGUAGES AND LINGUISTICS

37.001 General Linguistics: 37.500, 37.501, 37.502, 37.503, 37.505 (courses)

37.002 French Literature:

37.003 German Literature:

37.004 Russian Literature:

37.005 Spanish and Latin American Literature:

Selected courses and seminars with emphasis on particular authors, movements, periods, or literary forms.

37.012 French Literature and Culture:

37.013 German Literature and Culture:

37.014 Soviet Literature and Culture:

37.015 Latin American Literature and Culture:

Selected courses, colloquia, seminars with emphasis on contemporary scene. Applicable for language/area degree only.

NOTES:

1. Eligibility to take written comprehensive examinations is determined by a general oral examination.

2. The comprehensive fields listed above are based on core courses and additional courses as required plus additional reading lists.

Mathematics and Statistics

Correspondence Directory: STEVEN H. SCHOT, *Chairman*

Fields of Study

Modern Algebra, Matrix Theory, Real and Complex Variables, Linear Algebra, Mathematical Foundations, Number Theory, Partial Differential Equations, Integral Equations, Calculus of Variations, Numerical Analysis, Stochastic Processes, Probability Theory, Linear and Nonlinear Programming.

Undergraduate Degree

Bachelor of Arts

University Requirements

See page 23.

Note: Science and Mathematics are normally satisfied by major and related requirements. Consult department.

Language Requirement

One language (French, Russian, or German) is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Major in Mathematics

MAJOR COURSES (35 hours), required:

41.111, 41.222, 41.223, 41.310, 41.312, 41.322, 3 hours selected from 41.321, 41.440, 41.474, 69.484.

One year selected from 41.502-503, 41.512-513, 41.520-521, 41.550-551, 69.500-501.

Six more hours selected from any of the aforementioned 500 level courses or from 41.510, 41.515, 41.518, 41.519, 41.523, 41.524, 41.528, 41.546, 41.570, 41.574, 41.575.

RELATED COURSES (8-10 hours)

One year selected from the following:

9.110-9.111 General Biology I, II (4, 4)

15.110-15.111 General Chemistry I, II (4, 4)

15.200-15.210, 15.211 Chemical Principles, Qualitative Inorganic Analysis, Laboratory (4, 3, 1)

51.220-221, 51.222-223 Fundamentals of Physics I, II, Laboratory I, II (4, 4, 1, 1).

Electives

To complete minimum of 120 hours plus non-credit physical education.

Major in Statistics

All requirements are the same as for the Undergraduate Major in Mathematics except for the Major Courses which are as follows.

MAJOR COURSES (38 hours), required:

41.111, 41.222, 41.223, 41.310, 41.322, 41.474, 69.484, 69.500-501.

Nine additional hours selected from any 500 level statistics or mathematics courses with the restriction that no more than six of these nine hours shall be selected from 69.514-69.518.

Related Courses

Same as in mathematics major, above.

Graduate Degrees

Master of Arts

IN MATHEMATICS

Course Requirements

Minimum of 30 hours of approved graduate work, including 41.797 Master's Thesis Seminar in Mathematics and Statistics (3-6).

Written Comprehensive Examinations

Three, including 41.001 Modern Algebra or *41.002 Matrix Theory or 41.007 Linear Algebra; 41.003 Real Variables or 41.004 Complex Variables; and one other approved field.

Other Requirements

Proficiency examination in French, German or Russian to be satisfied before advancement to candidacy. Thesis and oral defense of thesis and the field in which it lies are mandatory in option (1).

Master of Arts

IN STATISTICS

Course Requirements

(1) Minimum of 30 semester hours of approved graduate work, including 41.797 Masters Thesis Seminar in Mathematics and Statistics.

(2) Non-thesis option: Minimum of 33 semester hours of approved graduate work including at least three hours of 69.690 Research Project.

Written Comprehensive Examinations

Three, including 69.001 Statistical Theory; 41.024 Theory of Probability; and one other approved field in statistics, mathematics (especially 41.027 Linear Algebra for Statistics or 69.026 Analysis for Statistics) or a field of application.

Other Requirements

Proficiency examination in Russian, German, or French to be satisfied before advancement to candidacy. Thesis and oral defense of thesis and the field in which it lies are mandatory "in option (1)."

* Not offered after spring 1971.

Doctor of Philosophy

IN MATHEMATICS

Course Requirements

Minimum of 66 hours of approved graduate work is required, plus the required semester hours in 41.799 Doctoral Seminar in Mathematics and Statistics, at least 30 (plus dissertation credit) of which must be completed in residence at The American University.

Written Comprehensive Examinations

Five approved fields are required: 41.006 Modern Algebra and Linear Algebra; 41.005 Real and Complex Variables; and three other approved fields, at least two of which must be in mathematics or mathematical statistics and one of which may be in a field closely related to the field of major interest.

Graduate Comprehensive Examination Fields

CORE FIELDS

- 41.001 Modern Algebra (M.A. only)
- *41.002 Matrix Theory (M.A. only)
- 41.003 Real Variables (M.A. only)
- 41.004 Complex Variables (M.A. only)
- 41.005 Real and Complex Variables (Ph.D. only)
- 41.006 Modern Algebra and Linear Algebra (Ph.D. only)
- 41.007 Linear Algebra (M.A. only)

SPECIALIZED FIELDS

- 41.010 Mathematical Foundations
- 41.011 Number Theory
- 41.012 Partial Differential Equations
- 41.013 Integral Equations
- 41.014 Calculus of Variations
- 41.018 Numerical Analysis
- 41.023 Stochastic Processes
- 41.024 Theory of Probability
- 41.025 Linear and Nonlinear Programming

Other Requirements

Proficiency is required in two languages chosen from French, German or Russian to be satisfied before advancement to candidacy. The dissertation on a topic sponsored by a full-time faculty member is in an appropriate field of analysis or algebra and oral defense of dissertation in the field in which it lies is required.

Doctor of Philosophy

IN STATISTICS

Course Requirements

A minimum of 66 semester hours of approved graduate work is required plus the required semester hours in 41.799 Doctoral Seminar in Mathematics and Statistics, at least 30 (plus dissertation credit) of which must be completed in residence at The American University.

Written Comprehensive Examinations

Five fields are required as follows:

- 69.002 and 69.003 Advanced Statistical Theory I and II
- 41.024 Theory of Probability
- 69.026 Analysis for Statistics
- 69.027 Linear Algebra for Statistics

Other Requirements

Proficiency is required in two languages chosen from Russian, German, and French

* Not offered after spring 1971.

to be satisfied before advancement to candidacy. The dissertation on a topic sponsored by a full-time faculty member is in an appropriate field of mathematical statistics and the oral defense of the dissertation and the field in which it lies follows.

Graduate Comprehensive Examination Fields

CORE FIELDS

- 69.001 Statistical Theory (M.A. only)
- 69.002 and 69.003 Advanced Statistical Theory I and II (Ph.D. only)
- 41.024 Theory of Probability (M.A. and Ph.D.)
- 69.026 Analysis for Statistics (required for Ph.D.)
- 69.027 Linear Algebra for Statistics (required for Ph.D.)

SPECIALIZED FIELDS

- 41.023 Stochastic Processes
- 69.010 Theory of Experiment Design
- 69.020 Theory of Sampling

Music

Correspondence Directory: LLOYD ULTAN, *Chairman*

Fields of Study

History and Theory, Composition, Musicology, Church Music, Music Education, Applied Music (Performance)

Undergraduate Degree Bachelor of Arts

University Requirements

See page 23.

Language Requirement

See page 26.

German is recommended for students specializing in music history.

Department Requirements

MAJOR COURSES (40 hours, plus Applied Music)

- 43.104 Theory I (4)
 - 43.105 Theory II (4)
 - 43.204 Theory III (4)
 - 43.205 Theory IV (4)
 - 43.300 History of Music I (3)
 - 43.301 History of Music II (3)
 - 43.304 Theory V (4)
 - 43.305 Theory VI (4)
 - 43.306 Conducting I (2)
 - 43.307 Conducting II (2)
 - 43.311 Orchestration (2)
 - 43.312 Keyboard Harmony I (2)
 - 43.313 Keyboard Harmony II (2)
- and Applied Music until completion of Senior Recital.

RELATED COURSES (8 hours)

All music majors must complete a minimum of eight hours of additional work in one of the following fields of specialization:

- Music History and Literature
- Music Theory and Composition

Music Education (Instrumental or Vocal)

43.140 Introduction to Music Education (3), 21.300 Foundations of Education (6), and 9-12 hours of 21.444 Student Teaching: Elementary and/or 21.445 Student Teaching: Secondary Schools (see page 180) are required of all students specializing in Music Education.

Performance

43.550 Pedagogy I (2), 43.551 Pedagogy II (2), and a minimum of four hours of Applied Music at the 44.434, senior level are required of all students specializing in Performance.

OTHER REQUIREMENTS

All students majoring in music are required to:

(1) participate in a faculty-conducted ensemble, related to their performance area where possible, for a minimum of one ensemble for each semester that they are in full-time attendance here (for part-time students one semester of ensemble for each 15 hours of course work completed here);

(2) present one half of a senior recital program (performance majors present a full senior recital program);

(3) pass a departmental Senior Comprehensive Examination in music history and theory during their final year of study.

Electives

Sufficient courses to complete a minimum of 120 hours are required.

Graduate Degree

Master of Arts

Admission

See page 16.

For possible graduate deficiencies, consult the undergraduate departmental requirements. Graduate deficiencies may be made up by appropriate course work or by waiver examination. Four semesters of Harmony and of Ear Training, and one semester each of Form and Analysis, 16th-century Counterpoint, and 18th-century Counterpoint shall be considered the equivalent of Theory I-VI. Courses no longer offered by the department (e.g., 16th-century Counterpoint) may be made up as undergraduate reading courses (see page 34).

All students are required to take the departmental Senior Comprehensive Examination in music history and theory either before or during their first semester of graduate work. The results are intended for counseling purposes only.

Students wishing to specialize in either Performance or Church Music are required to audition, either in person or by tape recording, prior to admission. The graduate degree in Performance is offered in all undergraduate performance areas, with the exception of guitar.

Students wishing to specialize in Music Education are required to have completed before admission to graduate study:

(1) nine hours in education; and

(2) one semester of teaching experience, or the equivalent in practice teaching. See 21.792 on page 182.

Fields of Specialization**Course Requirements****Composition**

Minimum of 30 hours, including:

43.507 Studies in Music Theory (3);

43.703 Advanced Composition (3);

43.797 Master's Thesis Seminar (3-6), the requirement being a large composition rather than a thesis;

plus a minimum of nine hours of additional graduate-level theory and composition courses.

Music History (Musicology)

Minimum of 30 hours, including:

43.510 Introduction to Musicology (3);

43.797 Master's Thesis Seminar (3-6);

plus a minimum of twelve hours in additional graduate-level music history and literature courses.

Church Music

For this particular degree no thesis is required; minimum of 36 hours, including:

43.515 Advanced Conducting (3);

43.570 Music in Worship (3);

43.670 Seminar in Church Music (3);

43.680 Medieval Music (3);

43.701 Renaissance Music (3);

43.500 Music of the Baroque Era (3);

and either (for organ majors):

44.532 Service Playing and Improvisation (4); or

44.742 Private Instrumental Study (organ) (4);

or (for choral majors):

43.504 Studies in Music Literature: Sacred Vocal Music (3);

44.792 Private Vocal Study (4).

Music Education

Minimum of 30 hours, including:

43.760 History and Philosophy of Music Education (3);

either 43.797 Master's Thesis Seminar (3-6)

or 43.690 Research Project (3)

plus either (a) or (b):

(a) for Instrumental majors and Vocal majors:

21.522 Evaluation of Student Progress (3) (see page 179);

43.540 Introduction to Graduate Study in Music Education (3).

(b) for General Music majors:

43.510 Introduction to Musicology (3).

Performance

Minimum of 30 hours, including:

43.510 Introduction to Musicology (3);

43.550 Pedagogy I (2);

43.551 Pedagogy II (2);

43.797 Master's Thesis Seminar (3 only);

plus four hours of Applied Music at the 44.791 or 44.792 level.

Electives

Electives may include any other graduate-level courses in the Department of Music. Students specializing in Church Music may also select, with the assistance of the Church Music Adviser, from among the following:

(1) appropriate courses in the Department of Philosophy and Religion;

(2) appropriate courses at the Wesley Theological Seminary.

Electives to complete the 30 hours (36 hours in Church Music) may not include:

(1) more than six hours of non-music courses; registration in such courses for credit toward the degree must be approved by the chairman of the Department of Music;

(2) more than four hours of Applied Music (students specializing in Performance or in Church Music may not include more than six total hours of Applied Music, i.e., two hours beyond the four that are required);

(3) more than three hours of 43.555 Collegium Musicum (1).

Comprehensive Examinations

One examination in music history and theory, and one examination in the student's field of specialization.

Available Comprehensive Examination Fields

- 43.000 General Music History and Theory (required of all students)
- 43.001 Composition
- 43.002 Music History (musicology)
- 43.003 Church Music (organ sub-specialty)
- 43.004 Church Music (choral sub-specialty)
- 43.005 Music Education (instrumental)
- 43.006 Music Education (vocal)
- 43.007 Music Education (general music)
- 43.008 Master's Recital

Other Requirements

Proficiency in German, French, or an approved substitute is required of students writing a thesis (i.e., majors in Music History; Performance; and Music Education majors who elect 43.797). Statistics, or the equivalent, may be required, as determined by the Music Education Adviser, in place of a language proficiency for students specializing in Music Education.

Proficiency in organ playing is required of Church Music majors specializing in choral music; proficiency in choral singing techniques is required of Church Music majors specializing in organ music. This requirement can be met by completing satisfactorily appropriate undergraduate courses in Applied Music, as determined by the Church Music Adviser, or by waiver examination.

Students majoring in Performance are required to present a minimum of four appearances on departmental student recitals, at least one as part of an ensemble performance, in addition to a full master's recital program.

Nursing

Correspondence Directory: LAURA KUMMER, Dean

Fields of Study

Nursing.

Undergraduate Degree
Bachelor of Science

Admission

See page 12.

Health Requirements

In addition to meeting all general University health requirements students are required to keep current immunizations for diptheria, tetanus, poliomyelitis, and small pox. Annual chest X-rays are required.

Transportation

Students assume responsibility for transportation between the University and various facilities used for laboratory and clinical experience. Students majoring in Nursing will find it desirable to have the use of an automobile during the junior and senior years; it is a necessity during the eight-week period in which students are enrolled in the course in public health nursing.

Curricular Plan

FALL SEMESTER		SPRING SEMESTER	
Freshman Year			
15.110 General Chemistry I	4	15.111 General Chemistry II	4
9.110 General Biology I	4	9.110 General Biology II	4
23.100 Comp. and Reading I	3	23.101 Comp. and Reading II	3
57.200 General Psychology	3	65.200 Intro. to Sociology	3
49.010 Freshman Orientation	0	Physical Education	0
	14		14

Sophomore Year

9.330 Human Anatomy and Physiology I	4	9.331 Human Anatomy and Physiology II	4
9.340 Microbiology	4	57.400 Child Psychology	3
46.200 Nursing I	7	46.201 Nursing II	8
Physical Education	0	46.440 Individual and Group Dynamics I	1
	<u>15</u>	Physical Education	0
			<u>16</u>

Junior Year

46.300 Nursing III	10	46.310 Maternal-Child Nursing	10
Philosophy Elective	3	3.301 Introduction to Anthropology	3
46.441 Individual and Group Dynamics II	1		<u>13</u>
	<u>14</u>		

*Summer Session: 5 weeks **

Electives (Humanities) 6

Senior Year

46.340 Psychiatric Nursing	6	46.410 Problem Analysis in Patient Care	4
46.400 Public Health Nursing Elective (Humanities)	3	46.420 Organization of Patient Care Services	4
	<u>15</u>	46.430 History and Analysis of Nursing Elective	3
			<u>3</u>
			<u>14</u>

* The six hours in the Electives (Humanities) may be taken during any Summer Session or during the regular semester with permission of the adviser.

Philosophy and Religion

Correspondence Directory: HAROLD A. DURFEE, *Chairman*

Undergraduate Degree Bachelor of Arts

University Requirements

See page 23.

Language Requirement

One language is required through the intermediate level: French, German, Greek, or Latin. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Departmental Requirements

PHILOSOPHY

MAJOR COURSES (30 hours)

Students majoring in Philosophy must complete 47.100 Logic and Scientific Method, and 27 hours in Philosophy at the 300-level and above, including 47.300-301 History of Philosophy.

Up to 9 hours of religion courses may be substituted for hours in philosophy.

Students majoring in philosophy are required to pass the Graduate Record Examination.

Fields of Study

History, Logic and Science, Epistemology.

RELATED COURSES (12 hours)

Courses at the 300-level and above in a single department.

RELIGION**MAJOR COURSES (33 hours)**

Students majoring in Religion are required to complete 47.150 Introduction to the Old Testament and 47.170 Introduction to the New Testament, 47.370-371 History of Christian Thought, 47.550 Studies in Non-Christian Religions, 15 additional hours in Religion, and 3 hours in Philosophy.

Up to 12 hours of philosophy courses may be substituted for hours in religion.

RELATED COURSES (12 hours)

Courses at the 300-level and above in a single department.

PHILOSOPHY AND RELIGION**MAJOR COURSES (36 hours)**

Students completing a combined major in Philosophy and Religion are required to complete 6 hours from 47.150 Introduction to the Old Testament, 47.170 Introduction to the New Testament, 47.180 Introduction to Religious Thought.

Also required is completion of 47.100 Logic and the Scientific Method, 47.300-301 History of Philosophy, and 21 additional hours in Philosophy and Religion chosen from 300-level courses and above. These 21 hours must include a 500-level course in both Philosophy and Religion and must include 9 hours in both Philosophy and Religion.

RELATED COURSES (12 hours)

Courses at the 300-level and above in a single department.

ELECTIVES

Students are required to complete minimum of 120 hours.

Graduate Degrees

Master of Arts

IN PHILOSOPHY

Two means are available for achieving an M.A. degree in Philosophy:

FIRST METHOD**Course Requirements**

Minimum of 30 hours of approved graduate work including 47.797 Master's Thesis Seminar (6).

Written Comprehensive Examination

One eight-hour examination in Philosophy (administered in two days, four hours each day).

Graduate Comprehensives

Examination Fields 47.01A and 47.01B Philosophy.

Other Requirements

Proficiency examination in French or German. Thesis and oral defense of thesis.

SECOND METHOD

Qualify for and pass four written Ph.D. comprehensive examinations.

Master of Arts

IN RELIGION**Course Requirements**

Minimum of 30 hours of approved graduate work, including 47.797 Master's Thesis Seminar (6).

Written Comprehensive Examinations

Three are required, including one in the History of Religion with special emphasis upon a selected non-Christian religion, one in the English Bible with special emphasis upon a selected author, and one in the History of Christian Thought with special emphasis upon a selected classical figure, or a related field.

Other Requirements

Proficiency examination in French, German, Greek, or Hebrew. Thesis and oral defense of thesis.

Available Comprehensive Examination Fields

- 47.003 History of Religion (with special emphasis upon a selected non-Christian religion).
- 47.004 English Bible (special emphasis upon a selected author).
- 47.021 History of Christian Thought (with special emphasis upon a selected classical figure in the same).

Doctor of Philosophy

IN PHILOSOPHY**General Requirements**

See page 28.

Minimum of 72 hours of approved graduate work are required of which at least 30 hours (plus 6-24 hours of dissertation seminar) must be completed in residence at The American University.

Admission

For consideration for admission, a student is recommended to have a superior undergraduate record and taken the Graduate Record Examination. Two letters of recommendation are required.

Course Requirements

Forty-eight to sixty-six hours of courses plus 6-24 hours of dissertation seminar are required.

Tools of Research

Two language proficiency examinations, French and German, or an acceptable substitute are necessary.

Written Comprehensive Examinations

Four are required, to include:

1. History of Philosophy
2. Logic and Philosophy of Science
3. Metaphysics and Epistemology
4. Value Theory

Advancement to Candidacy

Within six months after passing comprehensive examinations the student is to pass an oral examination in a field selected by him subject to departmental approval. Upon successful completion of the oral examination the student will be advanced to candidacy for the doctoral degree.

Dissertation and Oral Defense

The doctoral candidate is required to enroll for 6-24 hours of dissertation seminar.

Available Comprehensive Examination Fields

- 47.010 History of Philosophy
- 47.015 Logic and Philosophy of Science
- 47.020 Metaphysics and Epistemology
- 47.025 Value Theory

Physics

Correspondence Directory: MARK HARRISON, *Chairman*

Fields of Study

Mechanics and Quantum Theory, Electromagnetism and Optics, Statistical and Thermal Physics.

Undergraduate Degree Bachelor of Science

University Requirements

See page 23.

Note: Science and mathematics normally are satisfied by major courses and related requirements.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Recommended Languages: French, German, or Russian (choice of one).

Departmental Requirements

Students majoring in physics should register for 51.220-221 Fundamentals of General Physics I and II at the earliest opportunity. Concurrent registration in 41.222-223 Differential and Integral Calculus I and II is required. It is strongly urged these courses be taken in the freshman year if possible. This will necessitate a waiver examination for the 41.110-111 Fundamentals of Mathematics I and II or taking this course or its equivalent the summer before the freshman year.

The normal prerequisites to courses at the 300-level and above are 51.220-221 Fundamentals of General Physics I and II. However, with superior performance, 51.210-211 Elements of General Physics may be substituted provided approval of the departmental adviser is obtained.

MAJOR COURSES (Minimum Requirement 37 hours)

- 51.220-221 Fundamentals of General Physics I and II (8)
- 51.222-223 General Physics Laboratory I and II (2)
- 51.330-331 Principles of Mechanics I and II (6)
- 51.450-451 Electricity and Magnetism I and II (6)
- 51.560 Thermodynamics and Statistical Physics (3)
- 51.570 Introduction to Quantum Mechanics (3)
- 51.572 Introduction to Atomic and Molecular Physics (3)
- 51.580-581-582-583 Advanced Physics Laboratory I, II, III and IV (6)

RELATED COURSES (8 hours)

- 15.110-111 General Chemistry I and II (8)

TOOL COURSES (8 hours)

- 41.110-111 Fundamentals of Mathematics I and II (6)
- 41.222-223 Differential and Integral Calculus I and II (8)
- 41.321 Differential Equations (3)

Students planning to continue on to graduate work in physics are advised to take 51.500-501 Introduction to Mathematical Physics I and II (3, 3).

Note: A grade of C or better is expected for all tool and related courses.

Electives

Sufficient courses to complete minimum of 120 hours are required.

Graduate Degrees

Master of Science

General Requirements

A minimum of 30 hours of approved graduate work.

Core Courses

The student is expected to advance his knowledge of basic theory in the core areas of physics. Accordingly, the student will take most of the following core courses at an early date:

51.630-631 Theoretical Mechanics I, II

51.650-651 Electromagnetic Theory I, II

51.660-661 Statistical and Thermal Physics I, II

51.670-671 Quantum Mechanics I, II

While it is desirable to take all of these core courses inasmuch as they provide a conceptual foundation and are accordingly strongly represented on the Comprehensive Examinations, the student's program should also include such specialized courses as are required by the Research Training Program. The appropriate balance of core courses and specialized courses should be worked out with the student's adviser as described below.

Research Training Program

In order to expedite the student's research training, it is required that the student during his first year of graduate work will register sequentially for two semesters of the one credit course, 51.699 Current Topics in Physics. In the first semester of this course, he is required to select an adviser with whom he will plan a program of specialized courses to complement the appropriate core courses given above. The student then continues his research training by subsequently registering for six hours of either 51.795 Research Training Seminar or 51.797 Master's Thesis Seminar.

Written Comprehensive Examinations

Two approved fields: 51.001 Mechanics and Quantum Physics, 51.002 Electromagnetism and Optics, Statistical and Thermal Physics.

Doctor of Philosophy

General Requirements

See page 28.

A minimum of 72 hours of approved graduate work is required.

Qualifying Examination

The student is required to take a qualifying examination at an early date after entrance into the doctoral program. The Qualifying Examination is the above M.S. Comprehensive Examination and may be waived by M.S. students who score a grade of Distinction.

Core Courses

The student is required to have completed 51.630-631 Theoretical Mechanics I and II (6), 51.650-651 Electromagnetic Theory I and II (6), 51.660-661 Statistical and Thermal Physics (6), and 51.670-671 Quantum Mechanics I and II (6). The student is required to register for two hours of 51.699 Current Topics in Physics.

Tool of Research

Proficiency in one language is required, preferably chosen from Russian, German or French, or other tool approved by the Department.

Dissertation

The student is required to be registered for a minimum of 12 hours dissertation research.

Oral Examination

The student is required to take oral examinations in defense of his dissertation and over the basic material relevant to the area of research.

Written Comprehensive Examination

Two approved examinations: 51.005, 51.006, Ph.D. Comprehensive Examinations I, II. These examinations cover the subject area of the dissertation and material relevant to the area of research.

Psychology

Correspondence Directory: FRED H. NOTHMAN, *Chairman*

Fields of Study

General, Experimental, Learning and Conditioning, Clinical.

Undergraduate Degree

Bachelor of Arts

University Requirements

See page 23.

Note: Social Sciences normally are satisfied by the major and related requirements. Consult the department for details.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Departmental Requirements

Psychology majors are required to take all of the following listed courses. In addition they must select 31 hours beyond 57.200 a minimum of two courses each from categories A and B:

All of the following are required:

- 57.200 General Psychology (3)
- 69.301 Psychological Statistics (3)
- 57.302 Advanced General Psychology (3)
- 57.492 Experimental Psychology (4)

Category A (choose two):

- 57.403 History of Psychology (3)
- 57.425 Physiological Psychology (3)
- 57.460 Sensation and Perception (3)
- 57.480 Learning and Conditioning (3)
- 57.503 Psychology of Human Learning (3)

Category B (choose two):

- 57.400 Developmental Psychology: Childhood (3)
- 57.404 Social Psychology (3)
- 57.405 Psychological Tests and Measures (3)
- 57.430 Theories of Personality (3)
- 57.450 Abnormal Psychology (3)

The remaining six hours may be selected from any of the courses from categories A or B, or from the following:

- 57.307 Psychology of Adjustment (3)
- 57.401 Developmental Psychology: Adolescence (3)
- 57.504 Advanced Social Psychology (3)

Related Courses (12 hours)

69.202: Basic Statistics (3) or equivalent which is a prerequisite for 69.301.

In addition, the student should select 9 hours from areas other than psychology, with not more than 6 hours in a field. The selection may be made from, but is not limited to, the following fields: anthropology, biology, economics, education, mathematics, philosophy, sociology and statistics. For all fields, the specific courses must be approved by the major adviser. Courses must be at the 300-level or above, except for 41.222 and 41.223. Differential and Integral Calculus I and II (8) which will be acceptable.

Electives

Other courses than the above are required to complete minimum of 120 hours.

Departmental Honors

Consult the department chairman.

Graduate Degrees

Master of Arts

IN COUNSELING PSYCHOLOGY**General Requirements**

A minimum of 30 hours of approved graduate work is required. Completion of the program customarily requires four semesters. See also page 28.

Program Requirements

The program is shaped to the individual student's needs and interests but must include courses in Experimental Psychology, History and Systems, and Statistics. All students must enroll in courses in Counseling and in Tests and Measurements for their specialization.

Written Comprehensive Examinations

Two examinations are required, one in General Psychology and one in Counseling and Testing. The examinations must be taken when 18 hours of graduate work have been completed.

Other Requirements

Students in Counseling Psychology have an option of six hours of Practicum Training or six hours of Master's Thesis Seminar including the completion of a thesis.

GENERAL REQUIREMENTS FOR ALL DOCTORAL STUDENTS**Evaluation for Doctoral Candidacy**

Before becoming a doctoral candidate, each student will be evaluated by the faculty as a whole with regard to the quality of the:

1. Master's thesis
2. Course performance (at least a B average must be maintained in all courses, with no more than one C)
3. Assistantship and/or practicum performance
4. Oral examination that would serve as a Master's thesis defense and as fulfilling in part the qualifications for the doctoral candidacy.

Tools of Research

Two tools are required. This requirement may be satisfied by any two of the following:

1. Demonstrating a reading knowledge of one foreign language pertinent to research in psychology;
2. Competency in areas such as mathematical statistics, computer analysis or content outside of psychology relevant to the student's research interests (which may be satisfied by taking courses or an examination); or
3. A departmentally approved apprenticeship training experience.

At least one of these tools must be completed before approval of the student's doctoral dissertation proposal.

Specialty Examinations

A test of the student's knowledge of experimental or clinical psychology in general and his area of specialization in particular. An oral comprehensive examination is also required as determined by the director of the respective graduate program. These examinations must be passed prior to formal acceptance of the dissertation proposal.

Dissertation

A written proposal of the dissertation is to be submitted to the dissertation committee by the middle of the second semester of the third year. The original proposal, or a revision thereof, should meet the requirements of the committee by the end of the second semester. (This allows adequate time for the completion of a quality dissertation even if initial experimentation turns out to be exploratory in nature.) This committee is composed of four members, including the Chairman. (In the event that a dissertation is interdisciplinary in nature, one of the committee members should be a representative of the pertinent outside area.) These four members also constitute the dissertation oral committee. This examination, is open to all members of the department, as well as the University in general, and constitutes the final evaluation of the doctoral candidate.

Approval of the dissertation by the committee represents the successful completion of the doctoral program since all other university and departmental requirements will have been satisfied by the time of this dissertation defense.

Master of Arts

Doctor of Philosophy

IN EXPERIMENTAL PSYCHOLOGY

Admission

See page 16.

The master's and doctoral program are continuous and integrated. Completion of the master's program at a level demonstrating doctoral potential will permit the student to continue towards that degree. Admissions criteria are so devised as to make this progression likely. Each student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study.

Degree Requirements—The First Two Years

Fifteen of the 36 hours credit required for the master's degree, courses which should be viewed as the first two years of doctoral training, are scheduled as follows:

First Year

Inferential Statistics*
Instrumentation for Psychology
Foundations of Experimental Research*
Conditioning and Learning*
Sensation and Perception or Physiological Psychology
Directed Research

Intersession—Core course preparation

Second Year

Social Psychology*
Seminar (Psychology)
Research (M.A.)
Systems of Psychology*
Seminar (Psychology, or related field with permission of adviser)
Research (M.A.)

Intersession—M.A. Thesis

Core course preparation.

* Core courses common to experimental and clinical students.

Core Courses

The core and experimental specialty courses cover the following areas of psychology:

- Inferential Statistics
- Conditioning and Learning
- Sensation and Perception
- Physiological Psychology
- Social Psychology
- Foundations of Experimental Research
- Systems
- Instrumentation

These courses assume an undergraduate competence in their respective areas and quickly progress from that level to coverage of the currently active research endeavors with an emphasis on research methodology, critical problems, laboratory experience and research design. These core and experimental specialty courses will be supplemented by seminars conducted by the faculty as well as prominent psychologists in the Washington area.

Doctoral Candidacy—The Third and Fourth Years

After successfully completing the requirements presented above the student advances to doctoral candidacy. During the third year of graduate study he takes part in a *teaching internship*, takes his *specialty examinations* in experimental psychology, satisfies his *tools of research* requirement, and by his fourth year begins his *dissertation research*:

Third Year

- Correlational Statistics*
- Seminar
- Teaching Internship
- Computer Language and Applications
- Seminar
- Research (Ph.D.—3 credits)

Fourth Year

- Seminar
- Research (Ph.D.—6 credits)
- Research (Ph.D.—9 credits)

Master of Arts Doctor of Philosophy

IN CLINICAL PSYCHOLOGY

Admission

See page 16.

The master's and doctoral program are continuous and integrated. Completion of the master's program at a level demonstrating doctoral potential will permit the student to continue towards that degree. Admission criteria will be so devised as to make this progression likely. Each student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study.

Degree Requirements—The First Two Years

For full-time students (this is, those who register for nine credit hours per semester, attend the intercession, and take one course during the summer) the master's program will require two years of study. This credit load assumes the student is spending additional time as a research or teaching assistant, residence hall assistant, or clinical trainee. In this period the student is expected to complete a master's thesis.

Thesis Requirement

The thesis is the student's opportunity to demonstrate competency in research as well as providing an important learning experience.

* Core course

Schedule of Courses

The first two years of the program of doctoral training leading the master's degree are scheduled as follows:

First Year

Inferential Statistics*
 Foundations of Experimental Research
 Systems of Psychotherapy
 Conditioning and Learning*
 Test Theory
 Experimental Foundations of Clinical Psychology

Interession—Ethics and Professional Practice

Summer—Personality Theory
 M.A. Thesis

Second Year

Correlational Statistics*
 Intelligence, Aptitude and Interest Testing
 Practicum I
 M.A. Thesis
 History and Systems*
 Personality Testing
 Practicum II
 M.A. Thesis

Interession—M.A. Thesis

Summer—Advanced Abnormal Psychology

Core Courses

While scientific and professional training are spread throughout the three years of didactic instruction the first year represents a concentration in *experimental science*, the second in *professional techniques*, and the third in special attention to particular areas of professional functioning as they have evolved out of *research and application of theory*.

Core courses are distributed throughout the three years. For clinical students the first year includes the core courses.

First Year Core Courses

Inferential Statistics
 Foundations of Experimental Research
 Conditioning and Learning

Second Year Core Courses

Correlational Statistics
 History and Systems of Psychology

Third Year Core Course

Social Psychology

This core is designed to provide the student with a solid grounding in experimental science and teach a manner of approach to problems which will characterize professional functioning.

Course work in the science and art of clinical psychology is spread throughout the three years to teach the student different approaches to psychotherapy, provide a thorough working acquaintance with methods of treatment derived from experimental work in the field of learning, an understanding of test theory and administration, skill in techniques of counseling and psychotherapy, and familiarity with behavioral research.

Relevant training experiences are scheduled in the second and third years; a two-semester sequence of courses covers test theory and administration and a three-semester sequence is devoted to Practicums. In the Practicum the student will learn basic skills necessary in counseling and psychotherapy. Close, individual supervision will characterize this training, with the instruction being supplemented by the use of audio and video tape.

* Core courses common to students in clinical and experimental programs.

Doctoral Candidacy—The Third and Fourth Years

After successfully completing the requirements presented above the student advances to doctoral candidacy. During the third year of graduate study he takes additional courses, completes the tools of research requirement, begins the dissertation, and makes arrangement for a pre-doctoral internship to take place during the fourth year:

Third Year

Practicum III
 Social Psychology*
 Student Culture, Community Consultation, Contemporary Issues
 Elective
 Clinical Seminar
 Dissertation

Interession—Ph.D. Dissertation

Summer—Elective

Fourth Year

Off-campus Internship in appropriate clinical setting and completion of Ph.D. Dissertation.

Sociology

Correspondence Directory: HAROLD SHEPPARD, *Chairman*

Fields of Study

Theory, Methods, Complex Organizations, Comparative Social Organization, Social Psychology: Sociological.

Undergraduate Degree

Bachelor of Arts

University Requirements

See page 23.

Language Requirement

One language is required through the intermediate level. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Department Requirements

MAJOR COURSES (33 hours)

65.200 Introduction to Sociology
 65.400 Senior Seminar (to be offered 1970-71)
 65.411 Contemporary Sociological Theory
 65.420-421 Introduction to Social Research I and II
 Five courses (15 hours) in Sociology at the 300-level or above

RELATED COURSES (27 hours)

57.200 General Psychology
 3.201 Introduction to Cultural Anthropology
 69.202 Basic Statistics
 Six courses (18 hours) at the 300-level or above chosen from Psychology, Anthropology, Economics, Political Science, History, Philosophy, and Statistics

Department Honors

Consult the Department for details.

* Core Course

Graduate Degrees

Master of Arts

Course Requirements

A minimum of 30 hours of approved graduate work is required including:

- 65.510 Concepts of Sociology
- 65.511 Theory of Social Research
- 65.610-611 History of Sociological Theory I and II
- 65.612-613 Social Research Methods I and II
- 65.797 Master's Thesis Seminar (3-6)

Written Comprehensive Examinations

Two are required, one in sociological theory and one in methods of social research.

Other Requirements

At least one course above the introductory level in statistics or a departmental proficiency examination in statistics. Thesis and oral defense of thesis.

Doctor of Philosophy

Course Requirements

See page 28 for basic requirements.

A minimum of 72 hours of approved graduate work is required including 65.799 Doctoral Dissertation Seminar.

Advancement to candidacy is required between the 12th and 18th hours. The student must have a better than 2.00 average.

Other Requirements

Four are required, including one in sociological theory, one in methods of social research, one in complex organizations, and a fourth field selected from comparative social organization, social psychology (sociological) or an approved field outside the department.

Written Comprehensive Examinations

A proficiency examination is required in two tools of research (German or French, and statistics). A dissertation and its oral defense is required.

Graduate Comprehensive Examination Fields

CORE FIELDS

- 65.001 Sociological Theory (M.A., Ph.D.)
- 65.002 Methods of Social Research (M.A., Ph.D.)
- 65.015 Complex Organizations (Ph.D. only)

SPECIALIZED FIELDS

- 65.016 Comparative Social Organization (Ph.D. only)
 - 65.024 Social Psychology: Sociological (Ph.D. only)
- An approved Ph.D. Comprehensive field outside of the department.

Speech Arts

Correspondence Directory: JEROME B. POLISKY, *Chairman*

Fields of Study

Rhetoric, Public Address, Theatre, Speech Pedagogy, Theatre History, Theatre Production, History and Philosophy of Speech Education.

Undergraduate Degree

Bachelor of Arts

University Requirements

See page 23.

Language Requirement

See page 26.

Department Requirements

THEATRE EMPHASIS (33 hours)

67.122 Introduction to Theatre (3)

67.150 Argumentation (3)

67.170 Oral Interpretation (3)

67.123 Stagecraft (3)

67.322 Stage Movement (3)

67.323 Theory of Acting (3)

67.532 Directing (3)

67.550 History of Theatre I (3)

67.551 History of Theatre II (3)

Departmental Electives (6)

PUBLIC ADDRESS EMPHASIS (30 hours)

67.122 Introduction of Theatre (3)

67.150 Argumentation (3)

67.170 Oral Interpretation (3)

67.350 Introduction to Rhetoric or (3)

67.351 Introduction to Public Address (3)

67.352 Public Address in Contemporary Society (3)

Departmental Electives (12)

RELATED FIELD

All Speech Arts majors must complete a minimum of 15 hours outside the department in a related field of study chosen in consultation with departmental advisers.

THEATRE AND FORENSIC PROGRAMS

The Department of Speech Arts expects all majors to participate actively in the theatre and/or forensic programs of the department.

Electives

All majors are required to elect courses as needed to complete the minimum 120 hours plus non-credit physical education.

Graduate Degree

Master of Arts

Areas of Concentration

Graduate students may concentrate in theatre, rhetoric and public address or speech education.

Course Requirements

Minimum of 30 hours of approved graduate work including 67.602 Research Seminar in Speech Arts (3 hours) and 67.797 Master's Thesis Seminar (3-6 hours), or 67.798 Non-Thesis Option Seminar (6 hours).

Comprehensive Examinations

Two examinations are required including one exam in a core field and one exam in a specialized field. Core field exams must be taken in the Department of Speech Arts. Specialized field exams may be in the Department of Speech Arts or in an appropriate related field of another department. All Speech Arts exams will be administered by the department. Candidates will check with Dr. J. H. Yocum or the Department Chairman concerning the scheduling of examinations.

CORE FIELDS

- 67.001 Rhetoric and Public Address
- 67.002 Theatre
- 67.010 Speech Pedagogy

SPECIALIZED FIELDS

- 67.011 Rhetoric
- 67.012 Public Address
- 67.020 Theatre History
- 67.021 Theatre Production
- 67.005 History and Philosophy of Speech Education

Thesis and Non-Thesis Option

All Candidates for the M.A. degree in Speech Arts are required to complete a thesis or non-thesis option project. The student who elects the non-thesis option may (1) complete two research papers or (2) complete one research paper and a "creative" or "production" study in theatre. All production studies must be accompanied by a suitable written defense of the project.

Graduate students in the public address area are expected to write theses.

Technology and Administration

Correspondence Directory: RICHARD POWERS, *Director*

ISAAC D. WELT, *Deputy Director for Scientific and Technical Information*

Fields of Study

Data Processing for Teachers, Computer Systems, Operations Research, Scientific and Technical Information, Management Information Systems, Research and Development Management, Science Sources.

General

The Center for Technology and Administration was organized in 1958 by the School of Government and Public Administration to provide a vehicle for the study of the effect of the emerging technological revolution on the administrative process. In 1964, the School of Government and Public Administration, with the cooperation of the Department of Mathematics and Statistics of the College of Arts and Sciences, and the School of Business Administration, developed the curricular area known as TECHNOLOGY OF MANAGEMENT and assigned the instructional function to the Center for implementation. The establishment of a Graduate Certificate Program in Technology of Management in 1967, administered by the College of Continuing Education, combines with the previous development mentioned above to make the Center for Technology and Administration a University-wide institution governed by the Policy Board named above. The Technology of Management curriculum embraces seven comprehensive fields which are described on the next page.

Curriculum Coordination

In the University course numbering system, this curriculum is in the 55.000 series and is not a part of any other School. The relationship of this curriculum to the separate schools is defined by the schools themselves and currently appears as follows:

FOR THE SCHOOL OF BUSINESS ADMINISTRATION—

Required at the M.B.A. level—one Comprehensive Field

Required at the Ph.D. level—

- (a) one Comprehensive Field for Ph.D. in Business Administration,
- (b) two Comprehensive Fields for Ph.D. in Business Administration: Technology of Management.

FOR THE SCHOOL OF GOVERNMENT AND PUBLIC ADMINISTRATION—

Required at the M.A. level—one Comprehensive Field

Required at the M.P.A. level—two Comprehensive Fields

Required at the Ph.D. level—two Comprehensive Fields

FOR THE COLLEGE OF ARTS AND SCIENCES—

In the Department of Economics

Required at the Ph.D. level—one Comprehensive Field

IN THE DEPARTMENT OF MATHEMATICS AND STATISTICS—

Required at the M.A. level—one Comprehensive Field

FOR THE COLLEGE OF CONTINUING EDUCATION—

In the Department of Education

Required at the M.S. in Teaching level—one Comprehensive Field

Comprehensive Examination Fields

Comprehensive Fields offered by the Center for application in other schools and departments graduate degree programs are:

55.062 Data Processing for Teachers—Masters

55.063 Computer Systems

55.064 Operations Research

55.065 Scientific and Technical Information

55.066 Management Information Systems

55.067 Research and Development Management

55.068 Sources of Scientific Information: One Science—Doctoral

The educational aim of the instructional program offered in each of these comprehensive fields, excepting 55.062 Data Processing for Teachers, is the preparation of *technical management personnel*. In the pursuit of this aim, students will be expected to achieve a reasonable competence in the use of quantitative tools of analysis, and be able to apply and understand these tools in the discharge of the managerial function.

The aim of Comprehensive Field 55.062 Data Processing for Teachers is the development of a competence which will permit students, upon graduation, to teach data processing at the high school or community college level.

Students who plan to pursue the Technology of Management curriculum are urged to maintain close liaison with the school or college in which their degree will be awarded to insure that all requirements, other than those in Technology of Management, are met.

The Center counseling staff will undertake to advise all students on programs they select in the Technology of Management curriculum. However, on questions relating to admission, the acceptance of undergraduate credits, and other matter pertaining to overall degree program planning, students should see the particular counselor within the school or college in which they are pursuing their degree. For the 1969-70 academic year, these counselors are:

FOR THE SCHOOL OF BUSINESS ADMINISTRATION

at the M.B.A. level, Dr. Harold Sylvester

at the Ph.D. level, Dr. Nikos G. Photias

FOR THE SCHOOL OF GOVERNMENT AND PUBLIC ADMINISTRATION

at the M.A. and M.P.A. level, Dr. Robert Cleary

at the Ph.D. level, Dean Earl DeLong

FOR THE COLLEGE OF ARTS AND SCIENCES

in the Department of Economics, Dr. Nancy Barrett

in the Department of Mathematics and Statistics, Dr. John Smith

FOR THE COLLEGE OF CONTINUING EDUCATION

at the M.S. in Teaching level, Dean William Lanier

On matters relating to the particular comprehensive field of interest, the point of contact is the program director concerned. When no program director is named, students should contact the Assistant to the Director, who supervises the Center's overall counseling program.

Programs

Outlined below are suggested course sequences, flexible enough to meet the needs of each of the cooperating Schools and Colleges, yet sufficient in breadth and depth of subject matter to meet the competences required at the *masters level*. For the *doctoral level*, programs are planned and tailored individually to match the background educational experiences of the student, and to assist him in the pursuit of his individual educational objectives.

Courses outside the Center's educational program may be included in arranging a program at the doctoral level. Students pursuing the Ph.D. degree should consult the individual schools for a program designed to meet their needs. In those cases where the student is directed to contact the Center by the school, the Center's Director will arrange a suitable program of study and research.

Suggested Programs of Studies

Where "Field Requirements" are shown, nine semester hours of course work are required for the masters degree and twelve for the Ph.D., plus seminars if required.

55.062 DATA PROCESSING FOR TEACHERS

FOUNDATION REQUIREMENTS

- 55.310 Introduction to Data Processing
- 55.533 Computer Programming I: FORTRAN
- 55.534 Computer Programming II: COBOL
- 69.202 Basic Statistics
- 41.101 Survey of Mathematics II

FIELD REQUIREMENTS

- 55.530 Automatic Data Processing Systems
- 55.561 Management of ADPS
- 55.560 Systems Design for Business Operations
- 55.633 Evaluation of Software

55.063 COMPUTER SYSTEMS

FOUNDATION REQUIREMENTS

- 55.310 Introduction to Data Processing
- 55.333 Computer Programming I: FORTRAN
- 55.334 Computer Programming II: COBOL
- 55.411 Introduction to Management Mathematics

GENERAL REQUIREMENTS: 3-6 hours

- 55.530 Automatic Data Processing Systems
- 55.511 The Systems Approach

FIELD REQUIREMENTS

- 55.561 Management of ADPS
- 55.632 Advanced Computer Applications
- 55.633 Evaluation of Software
- 55.531 Computer Design
- 55.730 or 55.735 Seminars in Computer Systems (depending upon thesis option)

55.064 OPERATIONS RESEARCH

FOUNDATION REQUIREMENTS

- 69.300 Business Statistics, or
- 69.400 Managerial Statistics
- 41.111 Fundamentals of Mathematics II, or
- 55.411 Introduction to Management Mathematics

GENERAL REQUIREMENTS

- 55.540 Operations Research in Management

FIELD REQUIREMENTS

- 55.542 Probability & Statistics for Management Decisions
- 55.641 Methods of Operations Research I
- 55.642 Methods of Operations Research II
- 55.740 or 55.745 Seminar in Operations Research (depending upon thesis option)
- 41.576 Mathematical Methods of Operations Research

Students whose backgrounds are appropriate may, with approval, take courses in Statistics, Mathematics and Economics as substitutes.

55.065 SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS**FOUNDATION REQUIREMENTS**

- 55.310 Introduction to Data Processing
- 55.411 Introduction to Management Mathematics
- 69.400 Managerial Statistics

GENERAL REQUIREMENTS

- 55.530 Automatic Data Processing Systems
- 55.511 The Systems Approach

FIELD REQUIREMENTS

- 55.550 Survey of Information Science & Technology (Formerly Types and Uses of Scientific & Technical Information)
- 55.653 Concepts of Indexing and Abstracting
- 55.656 Publication Techniques
- 55.651 Technical Machine Systems
- 55.655 Automated Library Systems
- 55.750 or 55.755 Seminar in Scientific & Technical Information Systems (depending upon thesis option)

55.066 MANAGEMENT INFORMATION SYSTEMS**FOUNDATION REQUIREMENTS**

- 55.310 Introduction to Data Processing
- 55.411 Introduction to Management Mathematics
- 69.400 Managerial Statistics

GENERAL REQUIREMENTS

- 55.530 Automatic Data Processing
- 55.511 The Systems Approach

FIELD REQUIREMENTS

- 55.560 Systems Design for Business Operations
- 55.561 Management of ADPS
- 55.660 Management Information & Reporting Systems
- 55.760 or 55.765 Seminar in Management Information Systems (depending upon Thesis Option)

55.067 RESEARCH & DEVELOPMENT MANAGEMENT**FOUNDATION REQUIREMENTS**

- 69.400 Managerial Statistics
- 54.310 Public Administration or
- 10.481 Principles of Production

GENERAL REQUIREMENTS

- 55.511 The Systems Approach
- 55.570 The Management of Research & Engineering Organizations and Laboratories

FIELD REQUIREMENTS

- 55.670 The Politics and Economics of Research & Development
- 55.671 R&D in the Total Organization
- 55.672 Scientific & Engineering Manpower
- 55.673 Planning & Control of Research & Development Operations
- 55.770 or 55.775 Seminar in Research & Development Management (depending upon Thesis option)

55.068 SOURCES OF SCIENTIFIC INFORMATION: ONE SCIENCE

This field is available only to Ph.D. students who also elect *55.65 Scientific and Technical Information Systems*. The related course work or independent study or research will depend on the particular scientific field involved, and will be individually planned for the student on the basis of what is available from cooperating science departments in the College of Arts and Sciences, or from other Universities within the Washington area who are members of the Consortium of Universities.

Courses of Instruction

The following pages list the courses of instruction. In general, the following principles apply.

The first two digits of a course number represent the department, school, or college offering the course. Of the last three digits, .100-, .200-, .300-, and .400-level courses are primarily for undergraduate students. Courses numbered .500 are primarily for advanced undergraduate and graduate students; .600- and .700-level courses are open only to graduate degree students.

Independent study, research and reading courses are discussed in a separate section of this catalog and are not listed in the following.

Day classes, except those on Saturdays, ordinarily meet two days a week for 75 minutes a meeting. Saturday morning classes meet once a week for two hours and twenty minutes a meeting.

Evening classes ordinarily meet once a week for two hours and 45 minutes a meeting with a 15-minutes break during the evening; or they may meet twice a week for 75 minutes a meeting.

See also the regulations regarding courses under the individual school or department degree programs.

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Advertising—(See Business Administration)

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American Civilization— (See International Studies)

American Governmental System—(See Government)

American Studies

Courses available in this program are selected from certain other curriculums. See the degree requirements listed on page 46 for available courses.

Anthropology

3.201 Introduction to Cultural Anthropology (3)

The concept of culture. Ancient and contemporary cultures in anthropological perspective.

3.202 Biocultural Evolution (3)

Interrelationships between biological and cultural factors in the origin and development of man. Primate studies. Pre-historic man and his cultures. Contemporary human variability.

3.331 Variation in Man (3)

Variation in man by race, age, developmental stages, and sex. *Prerequisite:* 3.202.

3.332 Old World Prehistory (3)

Cultural development of man in Europe, Africa, and Asia from his earliest cultural beginnings through early metal ages. *Prerequisite:* 3.202.

3.333 New World Prehistory (3)

Prehistory and rise of civilizations in the North and South American continents from the arrival of the Indian to the time of European contact. *Prerequisite:* 3.202.

3.335 Ethnographic Survey (3)

Introduction to and comparison of the culture areas of the world; representative societies to examine the role of economic, social, political, and religious systems at various levels of complexity. *Prerequisite:* 3.201.

3.336 Social Structure (3)

Analysis of social organization of persons into groups and relation of group memberships to institutions defining rights and obligations with attention to questions of integration, conflict, choice, and change and/or stability. *Prerequisite:* 3.201.

3.430 Religion in Culture (3)

Theories and concepts relating to religions and religious development and behavior, exclusive of the great world religions. Role of religion in influencing behavior and integrating cultures. *Prerequisite:* 3.201.

3.431 Culture and Personality (3)

Study of the determinants of personality. Theories of psychological anthropology; psychological development of and cultural stress on individuals in primitive societies. *Prerequisites:* 3.335 and 57.200.

3.432 Culture Change (3)

Dynamics of culture. Stability, form, growth. Determinants of and barriers to change. Culture contact, acculturation and assimilation. *Prerequisites:* 3.201 and one additional course in cultural anthropology.

3.433 The Anthropology of Art (3)

The visual and plastic arts and their symbolism and expression in the cultures of Africa, Oceania, and the New World. *Prerequisite:* 3.201 or permission of instructor or department chairman.

3.434 Community Studies (3)

Anthropological theory and method relating to the studies of communities within complex societies. *Prerequisites:* 3.201 and 3.335 or 3.336, or permission of instructor or department chairman.

3.398-399 Junior Honors in Anthropology

3.498-499 Senior Honors in Anthropology

Individualized study for exceptional students. Topics to be arranged with appropriate faculty. Open to Juniors and Seniors with grade index of at least 2.0 in the major and 2.0 in the cumulative index. Requires approval of department chairman.

3.501 Cultural Anthropology (3)

Anthropological understanding and appreciation of culture, culture dynamics, relativity problems of cross-cultural relations, and individual adjustments to other cultures. Open only to non-majors especially graduate students to whom an appreciation of anthropology is essential to their major field of study.

3.530 Human Evolution (3)

Primate variation in form and behavior; early man in evolutionary and ecological perspective; fossil evidence; genetic, biological, and cultural factors. *Prerequisite:* 3.331.

3.531 Archeology: Topic to be chosen (3)

Archeological analysis and interpretation. Theory and method applied to archeological data of a particular area and/or period of time. Successive semesters deal with topics such as Pleistocene Ecology, Neolithic and urban development, Eastern Woodlands, Mesoamerica. May be repeated for credit if no duplication is involved. *Prerequisites:* 3.202 and 3.332 or 3.333.

3.537 Language in Culture (3)

Relation of language to culture; distribution of languages; cross-cultural consideration of language structure problems of language and culture change. *Prerequisites:* 3.201 or 3.335; 37.300 or 37.500.

3.538 Systemic Analysis: Area to be Announced (3)

Dynamic analysis of aspects of social/cultural systems as integral parts of larger wholes. Social/cultural "system" as problematical in defining the significance of sub-systems or sub-structures. Emphasis in successive semesters on: kinship, politics and law, economics, symbolism. May be repeated for credit if no duplication is involved. *Prerequisites:* 3.201 and 3.335 or 3.336.

3.539 Ethnology: Area to be Announced (3)

Culture area analyzed in terms of structure, function, and change. Ethnological research in the area for anthropological theory and method: Far East, South Asia, Southeast Asia, North America, Middle America, South America, Oceania, Sub-Saharan Africa, especially Western and Southern African culture areas. Course may be repeated for credit if no duplication is involved. *Prerequisites:* 3.201 and 3.335 or 3.336, or permission.

3.543 Analytical Methods (3)

Student practice in laboratory techniques and/or analysis of cultural materials. Stress on actual involvement in research. Methods presented in different semesters include Quantitative and Qualitative Methods, Osteology, Paleoecology, Technology, Documentary Analysis, Cultural Dynamics, and Cross-Cultural Analysis. May be repeated for credit if no content duplication is involved. *Prerequisite:* permission.

3.544 Applied Anthropology (3)

Application of principles and methods of cultural anthropology including results and significance of research, to contemporary inter-cultural relationships, administration of native peoples, technological development, health, urban and poverty problems and community development. *Prerequisite:* permission of instructor.

3.545 History of Theory (3)

History of the discipline. Systematic theory, method, and approaches of anthropology and exploration in the fields of ethnology, archeology, physical anthropology, and linguistics. Outstanding theorists of the field. Open to anthropology majors who are seniors or graduate students. *Prerequisite:* at least one course in each of the above fields.

3.550 Field Methods: Topic to be Announced (3-6)

Intensive training in ethnographic or archeological field methods. Ethnological utilization of the sub-cultural resources of the Washington area; or excavation in the U.S. or abroad. Preparation of proposals, funding, sampling, data gathering and preliminary analysis of materials. May be repeated for credit if no duplication is involved.

3.590 Graduate Readings in Anthropology

3.700 Seminar: Psychological Anthropology (3)

Selected emphasis on advanced topics such as cognitive processes and theory, semantic analysis and ethno-psychology, with particular emphasis on their significance for stability and change.

3.701 Seminar: Cultural Dynamics (3)

Systematic evaluation of existing theory of change, its strengths and inadequacies. Attempted adumbration of new theory with contemporary significance.

3.702 Seminar: Urban Anthropology (3)

Anthropological approach to cultures of the city. Analysis of cultural backgrounds of peoples moving to urban communities. Pathways of migrating groups into different levels of urban society. Subcultures of class and ethnic groups in the urban environment.

3.703 Seminar: Anthropology of Development (3)

In cooperation with the Departments of Anthropology in the Consortium of Universities to analyze and interpret processes of economic, social and cultural development of newly formed and independent countries. Training of professional anthropologists for research, consultation, or teaching.

3.704 Seminar: Social Anthropology (3)

Focused conceptual frame for study of social relations of groups and categories of persons, of institutions and relations among institutions in simple and complex societies. Significance of focus for theory of stability and change.

3.705 Seminar: Processual Interpretation (3)

Consideration of archeology as anthropology. Contributions of archeological data to general anthropological theory, especially cultural process.

3.731 Seminar: Problems in Anthropology (3)

Intensive analysis of selected theoretical and methodological problems in one of four fields of anthropology. May be repeated for credit if no duplication is involved.

3.797 Master's Thesis Seminar (3-6)

3.799 Doctoral Dissertation Seminar (12-24)

Applied Music—(See Music)

Archival Administration— (See Public Administration, or History)

Area Studies—(See International Studies)

Art

STUDIO

5.130 Oil Painting (1)

Basic problems of figure and still life painting. Emphasis on color and design. Primarily for amateurs, students other than art majors. May be repeated for credit.

5.160 Sketch Class (1)

Life drawing with emphasis on rapid sketch. May be repeated for credit.

5.320 Creative Painting (2-3)

Fundamentals of painting. Comprehensive consideration of color, composition and drawing from still life and figure and in individually assigned projects. May be repeated for credit. Student registers in elementary section in first year, intermediate section second year and advanced section in third and fourth years.

5.340 Sculpture (2-3)

Problems and principles of sculpture. Acquaintance with tools, techniques, materials for plastic expression. May be repeated for credit.

5.344 Ceramics (3)

Understanding of the nature of clay and its potentials and limitations and an awareness of the vitality and spontaneity of form and decoration in making pottery.

5.360 Drawing (2-3)

Structural drawing from the human figure: movement, expression. Range of techniques and mediums. May be repeated for credit.

5.364 Printmaking I (3)

Exploration of wood cut, serigraphy and various other print techniques as a media of creative expression.

5.365 Printmaking II (3)

Exploration of etching and other print techniques. Emphasis on experimentation with combined and new media.

DESIGN

5.348 Design Techniques I (3)

Showing through design projects a range of drawing media required in design presentation. Each semester is independent in its content. May not be repeated for credit.

5.349 Design Techniques II (3)

Sequel to 5.348. May not be repeated for credit.

5.350 Design Fundamentals I (3)

Theory and techniques of design applicable to all problems of visual presentation: layout, display, graphics, etc. Each semester is independent in itself and may be taken at any time. *Prerequisites:* 5.348 and/or 5.349 or concurrent registration.

5.351 Design Fundamentals II (3)

Sequel to 5.350. *Prerequisites:* 5.350 or 5.348 and/or 5.349 or concurrent registration.

5.352 Lettering and Typography I (3)

Theory and analysis of letter forms as design and symbol. Study of type faces, arrangement and setting.

5.353 Lettering and Typography II (3)

Continuation of 5.352; particular application to advertising design. *Prerequisite:* 5.352, or permission.

5.354 Creative Photography I (3)

Introduction to the problems of the camera and its use as a creative medium in the field of two-dimensional design. Laboratory and lecture.

5.355 Creative Photography II (3)

Continuation of 5.354. *Prerequisite:* 5.354, or permission.

5.356 Advanced Design I (3)

Experimentation and practice in design problems relating to visual communication; emphasis on techniques and solutions of professional problems. *Prerequisite:* 12 credit hours of design, including 5.350/1 and 5.348/9 or permission.

5.357 Advanced Design II (3)

Practical consideration and execution of complex design problems involving all previous design training. Continuation of 5.356. *Prerequisite:* 5.356 or permission.

5.368 Interior Design I (3)

Basic principles, materials and methods used in the vertical and horizontal designing of simple interior spaces. Lecture and laboratory. *Prerequisite:* 5.348 or 5.349 or concurrent registration.

5.369 Interior Design II (3)

Correlation of materials and furnishings with the functional requirements of multiple interior spaces. Lecture and laboratory. *Prerequisite:* 5.368.

5.378 Problems of Traditional Interiors (3)

Intensive investigation of aesthetic solutions to the designing of period interiors. Lectures and laboratory. *Prerequisites:* 7.102 and 7.103.

5.379 Problems in Modern Interiors (3)

Intensive investigation of aesthetic solutions to the designing of modern interiors. Lectures and laboratory. *Prerequisites:* 7.102 and 7.103.

5.388 Techniques of Interior Design (3)

Theory and practice of interior designs including the design, specification and fabrication of furnishings and equipment for interiors. Lectures and projects. *Prerequisite:* 5.369.

5.389 Senior Problems in Interior Design (3)

Thorough analysis, organization and solution of complex design problems in definitive and professional presentations. Laboratory. *Prerequisite:* 12 hours of interior design including 5.369 and 5.388.

ART EDUCATION**5.370 Materials and Crafts for Art Teachers (3)**

Exploration of various 2-dimensional and 3-dimensional crafts appropriate to teaching art at secondary level through studio practice. Art majors only. *Prerequisite:* juniors or seniors with 12 credit hours of studio courses.

5.371 Method of Teaching Art in Secondary Schools (3)

Theoretical and practical considerations of teaching art at secondary level through lecture, discussion and observation. Meets for 6 weeks prior to 9 weeks of student teaching. Must be taken in senior year in conjunction with 21.445 Student Teaching: Secondary Schools (9). Art majors only. *Prerequisites:* 5.370 and admission to 21.445.

5.380 Teaching Art in Elementary Schools (3)

Methods and techniques of teaching art as part of regular elementary school instruction. *Limited to Education majors in Elementary school program or permission.*

ART HISTORY**7.100 Survey of Art I: Ancient and Medieval (3)**

Illustrated historical introduction to architecture, sculpture and painting with art presented as an objectification and record of man's major beliefs and ideas. Field trips.

7.101 Survey of Art II: Renaissance and Modern (3)

Illustrated historical introduction to architecture, sculpture and painting in Western world between 1500 and 1950. Field trips.

7.102 Survey of the Decorative Arts I (3)

Illustrated historical introduction to the decorative arts, furniture, and interior architecture, from the Greeks through the 17th Century.

7.103 Survey of the Decorative Arts II (3)

Illustrated historical introduction to the decorative arts, furniture, and interior architecture, from the 18th through the 20th centuries.

7.104 Introduction to Visual Arts (3)

Develops visual perception and presents philosophical and theoretical background necessary for an informed and sensitive appreciation of painting, sculpture, architecture, and the decorative arts. Lectures, discussion groups, and visual material. *Does not satisfy art or art history major or related requirements.*

7.301 Greek Art (3)

Greek art and architecture from the Archaic period through the Hellenistic.

7.302 Roman Art (3)

The art and architecture of Rome from the Republic through the Empire. *Prerequisite:* 7.100 or 7.301.

7.304 Architecture: Renaissance and Baroque (3)

Renaissance, Mannerist and Baroque architecture in Italy and spread of styles to North Europe to 1700. *Prerequisite:* 7.101 or 7.301.

7.305 Architecture: Rococo through Modern (3)

Architecture in Europe and the United States from 1700 to present. *Prerequisite:* 7.101 or 7.304.

7.306 20th Century Art (3)

Painting, sculpture and architecture since 1900 in Europe and the United States. Investigates aesthetic theories common to contemporary art movements.

7.308 Oriental Art I: Chinese (3)

Main currents and monuments of Chinese art from earliest (c. 2500 B.C.) to 1800 A.D.

7.309 Oriental Art II: Japanese (3)

Arts and culture of the Far East with emphasis on Japan, India, and other Asian civilizations (excluding China).

STUDIO**5.520 Techniques of Etching I (3)**

Engraving, etching and aquatint, designed to give advanced student thorough knowledge of traditional and modern methods in intaglio printing. May be repeated once for credit. *Prerequisite:* 6 credit hours Printmaking (5.364/5) or 12 credit hours drawing.

5.521 Techniques of Etching II (3)

Continuation of 5.520. May be repeated once for credit. *Prerequisite:* 5.520.

5.533 Materials and Techniques of Painting (3)

Technical investigation of painting methods from Renaissance to present. Preparation of grounds, media, under-painting, glazing, emulsions for tempera, etc. *Prerequisite:* 12 credit hours of painting.

5.560 Drawing (3)

Experiments in the creative and expressive quality of drawing. Personal creative expression. *Prerequisite:* 12 credit hours of undergraduate drawing.

5.700 Criticism of Painting (3)

Theoretical and philosophical consideration of painting. Detailed analysis of artistic works. Lecture and slides. Formerly 7.700/7.701. *Prerequisite:* admission to Graduate Program in Fine Arts or permission.

5.792 Art Laboratory—Painting (3)

Intensive investigation of ideas and techniques in painting. Emphasis on experimentation, leading to development of individual style. *Prerequisite:* 24 credit hours of painting or graduate standing.

5.793 Art Laboratory—Sculpture (3)

Intensive investigation of sculpture with emphasis on experimentation leading to individual style. *Prerequisite:* 24 credit hours of sculpture or graduate standing.

5.794 Directed Project in Fine Arts (3)

Open only to M.F.A. candidates completing 6 credit hours of 5.792 or 5.793 (Art Laboratory). Student arranges independent study in painting or sculpture (etching may be specially arranged for students doing thesis in etching) under individual faculty with approval of faculty member and department chairman. Qualitative grade will be given. May not be repeated for credit.

5.797 Master's Thesis Seminar (6)

M.F.A. candidate with permission of Chairman.

ART HISTORY**7.500 Renaissance Painting (3)**

Painting in Italy from the 14th through the 16th centuries, beginning with the late Gothic tradition in Florence and Siena, and dealing with the Early and High Renaissance and Mannerism in Florence, Rome and Venice. See 7.510 for painting in the North. *Prerequisite:* Six hours of art history including 7.101 or equivalent.

7.501 Baroque Painting (3)

17th century painting in Italy, Spain, France, the Netherlands, and England. Emphasis on Caravaggio, Rubens, Rembrandt, Vermeer, Poussin, and Velasquez. *Prerequisite:* six hours of art history including 7.101 or equivalent.

7.502 Mediterranean Medieval Art (3)

Early Christian in Italy; Byzantine in the Near East; Romanesque in Italy. *Prerequisite:* 6 credit hours of undergraduate art history including 7.100 or equivalent.

7.503 North European Medieval Art (3)

Art from the early Christian period through Romanesque to 1400 (manuscript illuminations and French cathedrals; sculpture, stained glass). *Prerequisite:* 6 credit hours of undergraduate art history including 7.100 or equivalent.

7.504 Gothic Art (3)

Architecture, painting, sculpture, manuscript illuminations and stained glass from 12th to 15th centuries in Europe. *Prerequisite:* 6 hours of art history including 7.100 or equivalent.

7.506 Renaissance Sculpture (3)

Italian sculpture from 1400 to 1700 with stress on achievements of Donatello, Michelangelo, Bernini. *Prerequisite:* 6 hours of art history including 7.101 or permission of instructor.

7.507 Modern Sculpture (3)

Changes in sculpture from 1700 to the present with stress on innovations of Rodin, Brancusi, Moore and the American abstractionists. *Prerequisite:* 6 hours of art history including 7.101 or permission of instructor.

7.508 Painting: Rococo through Impressionism (3)

Painting in the 18th and 19th centuries in Europe; styles of Rococo, Neo-Classicism, Romanticism, Realism, and Impressionism with emphasis on such artists as Watteau, David, Delacroix, Goya, and Monet. *Prerequisite:* 6 months of art history including 7.101 or equivalent.

7.509 Modern Painting (3)

Painting in Europe and America from Post-Impressionism through contemporary painters, dealing with Cubism, Fauvism, Surrealism, and Abstract Expressionism, and concentrating upon major artists such as

Cezanne, Van Gogh, Gauguin, Picasso, and Matisse. *Prerequisite:* 6 hours of art history including 7.101 or equivalent.

7.510 Northern Renaissance Painting (3)

Painting in France, Germany and the Netherlands from the late 14th through the 16th centuries. Emphasis upon major artists such as Jan van Eyck, Durer, Holbein, Bruegel. *Prerequisite:* 6 hours of art history including 7.101 or equivalent.

7.511 Art in the United States: Architecture (3)

Architecture in the United States from 17th century to present, its European antecedents and as an independent style. *Prerequisite:* 6 credit hours of art history including 7.101 or equivalent.

7.512 Art in the United States: Painting (3)

Painting in the United States from 17th century to present; its European antecedents and as an independent style. *Prerequisite:* 6 credit hours of arts history including 7.101 or equivalent.

7.515 Graphic Art (3)

Deals with unique qualities of graphic art (drawings and prints) from Renaissance to present. *Prerequisite:* 6 credit hours of art history including 7.101 or equivalent.

7.520 Seminar in Art History (3)

Reports and critical discussion of research papers on topic announced for semester. May be repeated for credit. *Prerequisite:* 12 credit hours of art history and permission.

7.792 Research Seminar in Art History (3)

Seminars limited to one of five areas. Specific topics announced each semester. May be repeated for credit but only in a different period.

- I. Renaissance Art
- II. 17th and 18th Century Art
- III. 19th Century Art
- IV. 20th Century Art
- V. American Art

Prerequisites: Open only to M.A. candidates with 12 credit hours of graduate art history with a B average. Permission of Department Chairman required.

7.793 Directed Research in Art History (3)

Topic arranged. Must be in one of the fields listed under 7.792 but may not be in field covered in 7.792 that semester. May not be repeated for credit. *Prerequisites:* Open only to M.A. candidates with 12 credit hours of graduate art history with a B average. Permission of Department Chairman required.

Art History—(See Preceding)**Automatic Data Processing—(See Technology of Management)****Biblical Studies—(See Philosophy and Religion)**

Biology

9.100 Human Biology (3)

Semester course on current topics in Biology. Discussions on population dynamics, human ecological factors, genetics and evolution, transplantation biology, biological effects of human environmental pollution and human nutrition. No laboratory.

9.110-9.111 General Biology I and II (4, 4)

Two semester course in sequence. First semester, General Biology I, chemical background of biological principles; utilization of these principles in the organization and maintenance of higher plants. Second Semester, General Biology II, utilization of biological principles in animal physiology, genetic and reproduction mechanisms of biological systems. Two hours of lecture, four hours of laboratory.

9.304-9.305 Comparative Anatomy I and II (4, 4)

Two semester course in sequence. Inclusive program of Morphology of the living world, to include anatomy of the bacteria; the plant taxa; the invertebrates; the vertebrates. Two hours of lecture, four hours of laboratory. *Prerequisites:* 9.110 and 9.111.

9.321 Plant Physiology (4)

Survey of general physiological activities of plants. Two hours of lecture, four hours of laboratory. *Prerequisite:* 9.332.

9.330-9.331 Human Anatomy and Physiology I and II (4, 4)

Two semester course, in sequence. Morphologic and functional studies of mammalian systems with special reference to man; directed toward an understanding of the relationship between normal (and abnormal) function and homeostasis. Laboratory assignments to demonstrate these physiologic principles. Two hours of lecture and four hours of laboratory. *Prerequisites:* 9.110 and 9.111, at least one semester of chemistry, and permission of Department Chairman.

9.332 Cell Physiology (4)

Biological principles reexamined through physiological studies of selected microorganisms, animal and plant cells. Two hours of lecture, four hours of laboratory. *Prerequisites:* 9.110, 9.111, 9.304 and 9.305, and one year of Organic Chemistry.

9.335 Animal Physiology (4)

Properties and physiological processes common to all animals, based upon a study of the organ systems. Two hours of lecture, four hours of laboratory. *Prerequisite:* 9.332.

9.340 Microbiology (4)

Course will be centered around the relations between microorganisms and human health; and related laboratory procedures. Two hours of lecture, four hours of laboratory. *Prerequisites:* 9.110 and 9.111, at least one year of chemistry and permission of Department Chairman.

9.341 General Bacteriology (4)

Bacteria and their relationship to human welfare. Culture methods; principles of sterility; aseptic techniques. Two hours of lecture, four hours of laboratory. *Prerequisites:* eight hours of biology and one year of Organic Chemistry.

9.350 Advanced Biological Studies (4)

Introduction to research provided for qualified students in field of special interest. Offered to meet the needs of individual students. *Prerequisite:* permission of Department Chairman.

9.356 Genetics (3-4)

Principles of heredity and variations in animals and plants. Problems to illustrate Mendelian inheritance. Three hours of lecture and three hours of laboratory. (Laboratory optional) *Prerequisite:* one course in Biology.

9.358 Vertebrate Embryology (4)

Mechanics of development. Formation of germ cells, fertilization, cleavage of the fertilized ovum, morphogenesis, and later development of the frog, chick, and pig. Two hours of lecture, three hours of laboratory. *Prerequisite:* 12 hours of biology.

9.360 Clinical Laboratory Practice (12)

Six-month apprentice experience in laboratory of a hospital affiliated with the University in its Medical Technology Program. *Prerequisite:* senior in Medical Technology. May be taken twice for credit. Hours arranged.

9.523 Bio-Ecology (4)

Aquatic and terrestrial ecology; principles stressed through extensive field work; limnological phase with emphasis on water pollution; terrestrial phase with emphasis on synecology in various ecosystems. *Prerequisite:* senior or graduate in biology.

9.524 Plant Taxonomy (4)

Study of vascular plants from a phylogenetic taxonomic viewpoint. Laboratory to include preparation of herbarium specimens, techniques in preserving plants and practice in use of taxonomic keys. *Prerequisite:* senior or graduate status in biology.

9.531 Animal Histology (4)

Structures and properties of cells. Microscopic study of tissues and organs of representative mammals, including man. Two hours of lecture, four hours of laboratory. *Prerequisite:* senior or graduate in biology.

9.532 Parasitology (4)

A correlative course with emphasis on physiological relationship between parasite and host; clinical methods; control and prophylaxis; guest lectures, laboratories and field trips. *Prerequisite:* senior or graduate in biology.

9.533 Biological Designs (4)

Use of instrumentation in measuring and interpreting physiological phenomena. Two hours of lecture, four hours of laboratory. *Prerequisites:* 12 hours of biology and permission of instructor.

9.535 Endocrinology (3)

The structure and function of the endocrine glands with emphasis on their control of biological processes. Two hours of lecture, laboratory optional. *Prerequisites:* 9.335 and senior or graduate in biology.

9.537 Comparative Invertebrate Biology (4)

Comparative study of aquatic invertebrates which correlates morphology and physiology in relation to the aquatic environment and evolutionary development of the taxa. Two hours of lecture and four hours of laboratory. Field trips. *Prerequisite:* senior or graduate in biology.

9.541 Immunology (4)

Basic immunological principles with special emphasis on the role of microorganisms in the study of fundamental immunological mechanisms. Laboratory techniques concerned particularly with diagnostic serological reactions. Two hours of lecture, four hours of laboratory. *Prerequisites:* 9.341, one year of Organic Chemistry, and senior or graduate in biology.

9.543 Virology (4)

Nature and properties of plant, animal, and bacterial viruses. Laboratory techniques for cultivation and manipulation of viruses will be undertaken. Two hours of lecture, four hours of laboratory. *Prerequisites:* 9.341, one year of Organic Chemistry, and senior or graduate in biology.

9.570 General Entomology (4)

Morphology, life history, classification, and economic importance of insects. Two hours of lecture, four hours of laboratory. *Prerequisite:* senior or graduate in biology.

7.721 Advanced Plant Physiology (3)

Detailed study of biochemical mechanisms in plants including carbohydrate, lipid and protein metabolism, enzyme kinetics and chemistry of plant pigments. Lecture only. Laboratory optional, number of credit hours arranged with instructor. *Prerequisites:* 9.321, one year of Organic Chemistry, and graduate status in biology.

9.730 Advanced Cell Physiology (4)

Study of physiology emphasizing the functions of various cellular components such as chromosomes, mitochondria, membranes, nuclear, cytoplasmic interactions, and chloroplasts. *Prerequisites:* 9.332 and graduate status in biology.

9.733 Radiation Biology (4)

Study of the biological aspects of ionizing radiation in relation to the whole organism, to organ systems and to cellular and subcellular structures through appropriately selected laboratory experiments. *Prerequisite:* graduate status in biology.

9.751 Advanced Genetics (4)

Consideration of salivary chromosomes, nature of the gene, chromosomal irregularities, polyploidy, and mutations. Breeding experiments with *Drosophila* and small mammals will be conducted. Two hours of lecture and four hours of laboratory. *Prerequisites:* 9.341, 9.356, and graduate in biology.

9.752 Bacterial Genetics (4)

Introduction to genetic principles applicable to bacteria and viruses. Mutation, recombination, transformation, conversion, transduction, bacteriophage, molecular genetics. Two hours of lecture, four hours of laboratory. *Prerequisites:* 9.341, 9.356, and graduate in biology.

9.754 Immunogenetics (3-4)

Genetic control of immunologic reactions as applied to blood groups and tissue transplants. Two hours of lecture. Laboratory optional. *Prerequisites:* 9.356 and graduate in biology.

9.761 Experimental Embryology (4)

Mechanics of fertilization and growth. Review of important contributions in experimental embryology. Two hours of lecture and four hours of laboratory. *Prerequisites:* 9.332, 9.358, and graduate in biology.

9.700 Graduate Seminar (1)

Selected topics.

9.797 Master's Thesis Research (3-6)

Broadcasting — (See Communication)

Business Administration Accounting

Curriculum is registered with the State of New York.

10.306 Introductory Accounting I (3)**10.307 Introductory Accounting II (3)**

Basic principles underlying concepts. Assets, equities; fundamentals of business income measurement. Preparation of financial statements. Uses, limitations of accounting data for management and investor decisions. Appraisal of accounting, reporting practices. *Prerequisite:* 10.306.

10.311 Intermediate Accounting I (3)**10.312 Intermediate Accounting II (3)**

Review of fundamentals. Principles of asset and equity valuation; measurement of business income. Prevailing concepts and practices underlying financial statements. Financial reports and disclosure. *Prerequisite:* 10.307 or permission is prerequisite for 10.311. 10.311 is prerequisite for 10.312.

10.315 Advanced Accounting (3)

Partnership accounting. Business reorganizations. Business combinations through pooling and purchase. Consolidated financial reporting. Estates, trusts, and other fiduciary accounting. *Prerequisite:* 10.312 or permission.

10.400 Use of Accounting Methods (3)

Fundamentals, with concentration on uses of accounting as a tool of management. Not open to undergraduate business majors. Required of candidates for M.B.A. or Ph.D. who do not have adequate background in introductory accounting.

10.411 Cost Accounting (3)

Basic concepts and techniques. Responsibility accounting and performance measurement. Standard costs and flexible budgets as a management tool. Cost analysis for management planning and control, special decisions. *Prerequisite:* 10.307 or 10.400.

10.421 Auditing (3)

Audit objectives. Framework of auditing standards. Basic auditing procedures, techniques. Nature and function of audit working papers. Tests and sampling in the auditing process. *Prerequisite:* 10.312 or permission.

10.431 Fundamentals of Income Tax (3)

Introduction to federal taxation relating to corporations, individuals and partnerships. Practice preparation of tax returns. Tax planning. *Prerequisite:* 10.307 or permission.

10.512 Advanced Cost Accounting (3)

Special topics. Advanced work in technical problems of manufacturing costs. Current cost analysis, planning, control. Cost data and statistical applications. *Prerequisite:* 10.411.

10.514 Accounting: Readings and Problems (3)

Structure of accounting theory. Nature of accounting principles and postulates. Consideration of major problems of income measurement and their effect on asset and equity valuation. *Prerequisite:* 10.315.

10.532 Advanced Income Taxes (3)

Advanced aspects of particular interest to accountants, lawyers. Special problems of federal income taxes, including estates, trusts, corporate and partnership liquidations, distributions, reorganizations, special transactions. Federal gift, estate taxes. *Prerequisite:* 10.431 or permission.

31.008 Tax Planning in Real Estate (No Credit)

SEE INSTITUTES.

10.534 Systems Design and Installation (3)

Techniques of analyzing, designing accounting systems for effective managerial control. Adapting accounting procedures to organizations of various types and sizes. Demonstration of important machine methods. *Prerequisite:* 10.411.

10.539 Controllorship in Business (3)

Controller's functions. Emphasis on interpretation of accounting aspects of managerial problems, reporting. Role as staff member of management team. *Prerequisites:* 10.312, 10.411.

10.540 ADPS and Accounting (3)

Integration of accounting systems and modern machines. Impact of automatic data processing on functions, responsibilities of accountant. Effects on accounting operations, managerial decisions. Accounting safeguards. Field trips. *Prerequisite:* 10.534. Not offered 1969-70.

10.565 Financial Statement Analysis (3)

See Finance.

10.711 Seminar in Accounting Theory (3)

Development of accounting theory. Analysis of current accounting problems. Review of current literature. Required of M.B.A. and Ph.D. candidates taking Accounting Comprehensive Examination. *Prerequisite:* permission.

Advertising**11.411 Principles of Advertising (3)**

See General Marketing.

11.512 Advertising Copy (3)

How to write advertisements which increase sales. Distinctive problems of various types of copy analyzed, methods of copy testing evaluated. *Prerequisite:* 11.411.

11.513 Advertising Layout and Production (3)

Arrangement of headlines, copy, illustrations to achieve balance, gaze motion, distinctiveness, legibility. Type, paper, production processes. Practice in visualizing, laying out, scheduling, producing. *Prerequisite:* 11.512 or permission.

**Automatic Data Processing
—(See Technology of Management)****Business-Government Relations****10.500 Private Enterprise and Public Policy (formerly Business-Government Relations) (3)**

How government sets framework for the economy and conduct of business. What management should know of government control, regulation, promotion of business. Areas of cooperation and conflict. Development of and trends in business-government relations.

10.501 Legal Foundations of Business-Government Relations (3)

Focuses on legal powers, procedures of selected administrative agencies and of the legislative process; legal implications for business of public policy decisions; relation of corporate legal departments to business-government relations. *Prerequisite:* 10.500 or permission.

10.700 The Business Administrator and Government Policy (3)

Seminar using case problems to examine working relationships between business administrators and government (local, state, federal). Guest business, government leaders participate. *Prerequisite:* 10.500 or permission.

10.701 Seminar in Corporate Public Affairs (3)

Role of corporate public affairs department in advising management of political trends and issues affecting the firm, industry, private enterprise, general political and social structure. *Prerequisite:* 10.500.

10.703 Seminar in Business Law (3)

See Business Law.

10.705 Seminar in Business-Government Relations (3)

The philosophy of business-government relations with emphasis on research and in-depth analysis of issues and concepts. *Prerequisite:* 10.500 or permission.

11.504 Government and Marketing (3)

See Marketing.

Business Law

10.201 Business Law I (3)

Legal concepts and functions. Federal, state court systems. Legal phraseology; elementary legal bibliography. Elements of law of contracts, sales, and agency useful to business executives.

10.302 Business Law II (3)

Functions, form, content of commercial paper. Uniform Negotiable Instruments Act. Elementary law of partnerships, corporations, trusts, insurance, real and personal property. *Prerequisite:* 10.201.

10.401 Legal Environment of Business (3)

Development of law; contracts; negotiable instruments; types of organizations; real, personal property. *Prerequisite course for graduate business administration students who did not previously study Business Law or pass waiver examinations. Not open to undergraduates.*

10.703 Seminar in Legal Aspects of Business Problems (3)

Analysis of business problems arising from recent legal developments, particularly in connection with new Uniform Commercial Code. *Prerequisite:* 6 credits of Law and permission.

31.009 Institute on Termination of Government Contracts (no credit)

31.013 Institute on Problems of Fiduciary Obligations and Conflicts of Interest in the Modern Corporation (no credit)

SEE INSTITUTES.

Business Management

10.456 The Process of Management (3)

Theories of management. Managerial functions: planning, organizing, coordinating, motivating, controlling. Budgeting. Decision-making; communication; human relations.

10.457 Quantitative Methods in Decision-Making (3)

Appreciation, basic understanding of quantitative methods, tools that managers may use for improved decision-making. Range, applicability, integration within overall organizational framework. *Prerequisite:* 10.456, 69.400, 10.442.

10.458 Business Policy (3)

Integration of principles and concepts previously studied in individual courses. Analysis, definition, proposed resolution of business problems from managerial viewpoint. Case problem method, seminar approach. *Prerequisite:* senior standing.

10.557 Administrative Communication (3)

Fundamentals of: (1) organizational communication, including organizing of channels, systems, patterns, and (2) interpersonal communication, as developed by general semantics and the behavioral sciences.

10.558 Ethics in Management (3)

Ethical problems confronting administrators. Criteria, approaches to developing values, philosophy, ethical principles. Role of religious and spiritual factors. Applications to current organizational, administrative situations through case problems. *Open only to seniors, graduate students.*

10.656 Design of Organizations (3)

Resources necessary to achieve organizational objectives. Analysis from viewpoint of authority, response, communication systems, compensation, technology, management patterns. Heavy emphasis on behavioral sciences contribution. *Prerequisite:* Satisfactory completion of all M.B.A. first year courses or equivalents.

10.657 Planning—Programming—Budgeting (3)

Conceptual foundations of management controls as expressed in quantitative terms. Establishing long, short term objectives. Planning process: formulating, controlling, evaluating, modifying. Benefit-cost analysis. Budget, other managerial tools used to evaluate performance in both dollar and non-dollar terms. *Prerequisite:* Satisfactory completion of all M.B.A. first year courses or equivalents.

10.756 Seminar in Policy Formulation and Administration I (3)

Executive skills through seminar approach, case problem method. Emphasis on competence in effective analysis of organizational problems, formulation of appropriate managerial policies. *Required of M.B.A. and Ph.D. Candidates. Prerequisites:* At least "B" average in previous graduate studies, 10.456, and, for part-time M.B.A.'s, Advancement to Candidacy.

10.757 Seminar in Policy Formulation and Administration II (3)

Continuation of 10.756. Development, through seminar approach and case problem method, of executive skills. *Required of M.B.A. and Ph.D. Candidates. Prerequisites:* 10.756 and at least "B" average in previous graduate studies.

10.758 Seminar in Human Relations I (3)

Development, through seminar approach and case problem method, of capacity to work effectively with superiors, equals, subordinates. Importance of human relations in successful business operations. *Required of M.B.A. and Ph.D. Candidates. Prerequisites:* 10.456, 10.491 desirable background.

10.759 Seminar in Human Relations II (3)

Continuation of 10.758. *Prerequisite:* 10.758.

10.760 Doctoral Seminar in Management Literature (3)

Reading and analysis of major contributions to philosophy, methodology, concepts of management, human relations, other basic areas. Group analysis, seminar discussion, individual research projects. *Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor.*

10.761 Seminar in Philosophy of Management (3)

Fundamental concepts of management: analysis of interrelations, relation to administrative process. Development of organizational, individual philosophy. *Required of Ph.D. Candidates. Prerequisites:* 10.756, 10.757, 10.758.

10.762 Seminar in Corporate Planning (3)

Nature, structure of planning. Development, coordination of financial, manpower, marketing, technical planning. Profitability planning. Short-term, long-term planning. Planning and forecasting. *Prerequisites:* 10.656, 10.657, 10.757.

Church Management

Wesley Theological Seminary students may take church management courses for which they are qualified and which are appropriate to their degree programs, without additional cost, subject to approval of the student's faculty adviser and the Director, Center for Church Management.

12.545 Church Program Development (3)

Basic concepts of management and their application in designing action programs to accomplish congregational purposes, objectives, goals. Fact-finding, problem identification forecasting, policy-making, planning.

12.546 Managing Church Financial Resources (3)

Systematic approaches to obtaining and using monetary resources for churches and related non-profit organizations. Stewardship applied through budgeting, fund raising, purchasing, accounting. *Prerequisite:* 10.306, or permission.

12.547 Church Family Financial Planning (3)

Assistance to religious leaders in planning their own family financial affairs and in helping them qualify to teach groups, counsel individuals with problems of family finance. *Prerequisite:* 10.467, or permission.

12.548 Church Property Management (3)

Acquiring, using, maintaining, protecting real estate and equipment for religious purposes. Legal considerations; tax obligations. For pastors, property managers, and others responsible for administration of physical facilities.

1.549 Church Office Services (3)

Functional approach to office planning and staffing, housing and equipping, communicating and scheduling, recording and reporting. Case problems to develop, integrate administrative skills.

12.550 Personnel Relations for Religious Organizations (3)

Responsible stewardship of human resources. Determining and describing staff positions; enlisting, assigning, and training staff personnel, both volunteers and employees; developing and maintaining staff morale.

12.551 Church Management: Selected Topics (2)

Observations, field studies, conferences, shared experiences to explore significant subject areas not covered adequately in other courses. Varying themes announced each session. May be repeated if different topics are covered. Topics selected from: Accounting Methods, Estate Planning, Financial Auditing, Food Services, Group Procedures, Information Systems, Insurance Programs, Office Communication, Personnel Records, Program Budgeting, Public Relations, Systematic Purchasing, Tax Problems.

12.552 Church Management Internship I (3)

Correlation of faculty-supervised work experience and seminar sessions, to apply previous studies, develop comprehensive philosophy. Practical research, evaluation, reports. *Prerequisite:* Six credits in Church Management or permission.

12.553 Church Management Internship II (3)

Scheduled field-work assignments and seminar sessions, primarily for students preparing for religious career service as professional directors and ministers of management. An applied research project is completed and reported as if for publication. *Prerequisites:* 12.552 or permission.

12.554 Church Program Promotion (3)

Management strategy that churches and related non-profit organizations may use effectively in seeking acceptance of and identification with their purposes, objectives, goals, accomplishments, potentialities, needs.

12.746 Seminar in Religious Organization Management (3)

Individual research on a selected category of related organizations, with varying selections announced each session. Two categories now available: Religious Congregations and Judicatories; Church-Related Camps and Assembly Centers. Anticipated offerings: Denominational Junior Colleges; Church-Related Community Service Agencies. May be repeated for credit if different category is covered.

For those who cannot participate in the foregoing courses on a full semester basis, the Center for Church Management offers a series of non-credit Institutes the subject matter of which is substantially equivalent to that of 12.545, 12.546, 12.547, 12.548, 12.549, 12.550, and 12.554. For further details, see *Institutes*, page 199.

See also *Catalog of Wesley Theological Seminary* for graduate courses related to Church Management.

Computer Systems

See "Technology of Management," p. 235.

Dissertation Seminar**12.799 Doctoral Dissertation Seminar (3)****Economics**

For courses see page 175 under S.B.A. degree requirements.

Finance**BASIC COURSES****10.465 Business Finance I (3)**

How businesses acquire and manage short-term funds. Nature, use of financial instruments. Lending institutions. Money markets. Introduction to financial management. Government assistance to small business. *Prerequisites:* 10.307 or 10.400 and 19.101 or 10.442.

10.466 Business Finance II (3)

Acquisition and management of long-term funds by business firms. Investment institutions as sources of funds. The capital markets. Business long-term financial problems. Government regulations. *Prerequisites:* 10.307 or 10.400 and 19.101 or 10.442; 10.465 recommended.

10.467 Personal Finance (3)

Attaining personal investment goals by effective money management. Increasing value of income: budgeting, efficient saving, low cost borrowing. Providing for retirement, old age, sickness. Introduction to investments, insurance, taxes.

10.565 Financial Statement Analysis (3)

Appraisal of prevailing techniques of statement analysis. Significance of "generally accepted accounting principles". Development of meaningful analytic methods from viewpoint of financial management. *Prerequisites:* 10.465, 10.466.

COMMERCIAL BANKING

Candidates for B.S. in Business Administration may receive up to 16 credits of advanced standing for studies satisfactorily completed at the American Institute of Banking. For evaluation, submit AIB transcript to Director, Finance Program.

10.571 Commercial Banking Policies (3)

Factors determining management policies, services offered by individual commercial banks. Internal: capital resources, market development, profitability of functions, relations to other banks. External: government regulation, economic conditions. For present and prospective bank officers. *Prerequisite:* 19.306 or permission.

10.567 Funds Management (3)

See below.

10.771 Seminar in Commercial Bank Management (3)

Analysis of current managerial problems from viewpoint of chief executive officers. Effect on individual banks of changing economic, competitive, political, regulatory policies, proposals, actions. *Prerequisite:* 10.571 or permission.

FINANCIAL MANAGEMENT**10.566 Financial Management (3)**

Case problem analysis to develop skills in diagnosis and solution of a wide range of financial problems and in financial decision-making. Interrelations of financial, functional, general management. *Prerequisites:* 10.465 and either 10.466 or permission.

10.567 Funds Management (3)

Financial managers' use of money market for acquisition of short-term financial requirements, short-term investment of retained earnings and seasonal excess funds. Money market institutions, instruments from view-point of users. *Prerequisites:* 10.465, 10.466.

10.765 Seminar in Financial Management (3)

Examination in depth of current issues, newly developed tools. Review of literature to cover total area of Business Finance. Required of students electing *Financial Management Comprehensive Examination*. *Prerequisites:* 10.566, 10.567.

10.539 Controllership in Business (3)

See *Accounting*.

INVESTMENT ANALYSIS ****10.569 Investment Analysis (3)**

Selecting securities. Timing: Dow Theory, dollar averaging, formula planning. Market fluctuations: measurement, analysis. Information sources. *Prerequisite:* Basic understanding of securities from experience or from 10.466 or 10.467.

10.570 Advanced Investment Analysis (3)

Securities analysis. Investment approaches, theories. Portfolio construction, management. Current trends. Practical techniques for successful investment. *Prerequisite:* 10.569.

10.769 Seminar in Investments (3)

Consideration on seminar basis of current problems and trends as indicated by developments in both academic and popular literature. Selected case problems. Required of students electing *Investment Analysis Comprehensive Examination*. *Prerequisite:* 10.570.

Students may secure experience in portfolio management by being accepted to membership on the Investment Committee of S.A.M. The Committee administers the "Nathan A. Baily Investment Training Fund" which was contributed to S.A.M. in honor of Dean Baily and in order to provide such actual experience to supplement courses in Investments.

Industrial Relations, Personnel, and Manpower Management

10.491 Personnel and Manpower Management (3)

Introduction to philosophy and principles of manpower management; the work world; needs, motivation, rights and responsibilities of employees; manpower management as a specialized management function.

10.492 Industrial Relations (Formerly 10.592) (3)

Basic principles of union-management relations; history of union organization; fundamental legislation; negotiation and administration of collective agreements; economics of collective bargaining.

10.495 Manpower Management Policies (3)

Intensive examination through case analysis, assigned reading, and individual and group research of the policy formulation process in manpower management. *Prerequisites:* 10.491, 10.492.

**10.591 Personnel Management Operations (3)
(Formerly Manpower Appraisal and Motivation)**

Analysis of techniques generally utilized in personnel budgeting, recruitment, selection, placement, performance rating, wage and salary administration, in terms of practical application and human relations principles. *Prerequisite:* 10.491.

** 10.565, 10.569, 10.570, 10.769 provide excellent background for *Chartered Financial Analyst Examination*.

10.595 Training and Education in Industry (3)

Designing, administering, evaluating, training and educational programs in industry at all levels; analysis of techniques generally employed in industry, current developments, and problems, including substantial treatment of training the disadvantaged.

10.596 Industrial Relations: The Legal Environment (3)

Survey of the legal environment of the industrial relations system and the collective bargaining process in terms of governmental regulation. *Prerequisite:* 10.201, or 10.401, 10.492 or permission of instructor.

10.692 Collective Bargaining and the Public Interest (Formerly 10.593, Advanced Industrial Relations) (3)

Examination of classic and current theory of collective bargaining in terms of its economic and political impact upon the public interest. *Prerequisite:* 10.596 or permission of instructor.

10.791 Seminar in Personnel and Manpower Management (3)

Individual and group research in current problems and developments in personnel and manpower management. *Required of all Master and Doctoral candidates choosing Industrial Relations and/or Personnel Management as an elective field. Prerequisites:* 10.491, 10.591 or permission of instructor.

10.792 Seminar in Industrial Relations (3)

Individual and group research in current problems and developments in collective bargaining. *Required of all Master and Doctoral students choosing Industrial Relations and/or Personnel as an elective field. Prerequisites:* 10.596, 10.692 or permission of instructor.

10.793 Doctoral Research Seminar in Manpower Management (3)

Scope of seminar covers entire discipline of Manpower Management in terms of its literature. Oral and written reports on assigned topics required. *Required of all Doctoral students choosing Personnel Management and Industrial Relations as an elective field. Prerequisite:* permission of instructor.

10.795 Seminar in Manpower Management (3)

Use of selected case problems to develop an integrated conceptual philosophy and the role and function of the manpower administrator in its application. *Required of all Master and Doctoral students electing Personnel Management and/or Industrial Relations as an elective field. Prerequisite:* permission of instructor.

Insurance**11.486 Risk and Insurance (3)**

For non-specialists in insurance. Most effective means of protecting individuals and firms against insurable risks. Kinds of risks, analysis of contracts, comparison of costs.

11.586 Life Insurance I (3)

Fundamental principles. Analysis of companies, contracts, costs to policyholders. Premium computation, valuation, apportionment of surplus. State regulations, laws, judicial decisions. *Course preparatory for Part A of the Chartered Life Underwriter's examination.*

11.587 Life Insurance II (3)

Fundamentals applied to estate planning, group insurance. Methods of computing mortality tables, premiums, reserves. History of life insurance; its role in U.S. economic development. *Course preparatory for Part A of the Chartered Life Underwriter's examination.*

11.588 Property Insurance (3)

Insurance coverage of losses due to fire; the fire insurance contract; insurable interest; endorsements. Business interruption; multiple line and all risk coverage. Rates; reserves, reinsurance; loss adjustments. *Background for Chartered Property and Casualty Underwriter examination. Recognized by State of Maryland for insurance license. 11.589 and 11.591 must also be completed satisfactorily for the examination.*

11.589 Casualty Insurance (3)

Hazards underlying and protection provided by workmen's compensation, liability, automobile, aviation, accident and health, theft, boiler, machinery insurance. Rate making; regulations. Prospecting; selling. *Background for Chartered Property and Casualty Underwriter examination. Recognized by State of Maryland for license. 11.588 and 11.591 must also be completed satisfactorily for the examination.*

11.591 Automobile Insurance (3)

Nature of family auto policy; other auto policies. Financial responsibility; functions of auto insurers. *Recognized by State of Maryland for insurance license. 11.588 and 11.589 must also be completed satisfactorily for the examination.*

11.788 Seminar in Casualty and Property Insurance (3)

Integrating seminar. Emphasis on impact of underwriting changes on business operations. Research, analysis of selected topics. *Required of students electing Casualty and Property Insurance Comprehensive Examination. Prerequisites:* 11.588, 11.589.

International Business**11.526 Fundamentals of International Business (3)**

Types, patterns of operations. Foreign trade policies. American markets for foreign commodities. Foreign markets for American products. Channels of international marketing. International advertising, sales promotion. *Prerequisite:* 11.300.

11.527 Export-Import Management (3)

Buying and selling in foreign trade. Export-Import shipments. Freight forwarders. International arbitration. Financing, credits, collections. Insurance. Packing. Tariff procedures and documents. Airshipments. Communications. *Prerequisite:* 11.526.

11.528 International Marketing Operations (3)

Business, marketing objectives of U.S. firms abroad. Techniques implementing objectives. Market analysis. Marketing intelligence and information sources. Economic, cultural, organizational, government factors affecting overseas marketing operations. *Prerequisite:* 11.526 or permission.

11.529 World Business Conditions: Problems and Opportunities In . . . (3)

The subject matter of this course changes each session to concentrate on a different major area of the world. Opportunities for local and international firms in specific countries, grouped by language and/or geography. Analysis of purchases, employment, capital formation, cooperation with foreign businesses. Contribution of private enterprise to industrial development. *Prerequisite:* 11.528 or permission.

11.626 The Multi-National Firm (3)

Comparative analysis of firms with foreign subsidiaries. Organizing, controlling, managing subsidiaries; relations with governments, customers. Role in economic development, balance of payments, international relations. *Prerequisite:* 11.526 or permission.

11.726 Seminar in International Business (3)

Growth of native and international businesses throughout the world. Trends, policies, problems. Interaction with national economies, political conditions. *Prerequisite:* 11.626.

31.025 Annual Ocean Shipping and Foreign Trade Management Institute (No Credit) See Institutes

See also Transportation courses on page 169. *International Economics and Economic Geography* courses offered by Economics; *International Relations* courses offered by International Service.

Managerial (Business) Economics

10.422 Introduction to Management Economics (formerly 19.310) (3)

First year economics in one semester. Emphasis on areas most useful to business executives. The economy; its indicators, measures, fluctuations. The firm; economic tools for decision making. For M.B.A. and Ph.D. candidates entering without economics.

10.542 Foundations of Business Forecasting (3)

Tools needed by executives to evaluate appraisals of economic outlook in decision-making. Business cycles; fluctuations of income and employment; economic and business indicators. *Prerequisite:* 10.442.

10.642 Managerial Economics (3)

Fundamental theoretical, analytical tools of economics applicable to decision making. Research of empirical and theoretical studies, evaluation of their application to economic analysis in management. Required of M.B.A. and Ph.D. candidates. *Prerequisites:* 10.400, 69.400, 10.442, and 10.456, or equivalents.

10.643 Managerial Analysis (3)

Integration of economic, organizational, motivational, legal, ethical, other managerial aspects in solving national and international business problems. Profits; output; pricing; capital expansion; planning; control. Required of Ph.D. candidates. *Prerequisite:* 10.642.

10.742 Seminar in Managerial Analysis (3)

Development of decision-making skills through analytical case studies. Oral and written reports, discussion, research. Required of Ph.D. candidates. *Prerequisites:* 10.643 and completion of Statistics tool of research or Mathematics through Calculus.

10.743 Doctoral Seminar in Managerial Analysis Literature (3)

Reading and analysis of major contributions to philosophy, methodology, concepts. Group analysis, seminar discussion, individual research projects. Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor.

Management Information Systems

See *Technology of Management*, page 235.

Marketing

GENERAL MARKETING

11.300 Marketing I (3)

Role of marketing in economy and in accomplishing business, social objectives. Demand and markets; marketing institutions; essential functions; government as regulator, buyer; appraisal of marketing activities, goals. Basic understanding necessary for managers, consumers. *Prerequisite:* 19.100 or 10.442.

11.301 Marketing II (3)

Role of marketing management in business. Nature of decision processes; marketing research; buyer motivation, behavior; product planning; channels of distribution; pricing; promotional programs. *Prerequisite:* 11.300.

11.402 Salesmanship (3)

Art of salesmanship; creation of consumer desires, aiding customers in buying. Buying motives; selling techniques; characteristics of efficient salesmen. Selling in a dynamic economy.

11.411 Principles of Advertising (3)

Advertising approach to marketing problems. Advantages, limitations of advertising. Elements of advertising campaigns; budget, product, consumer studies, media selection, copy, layout, production, scheduling, testing. *Prerequisite:* 11.300 or advertising experience.

11.436 Retailing Management (3)

Basic principles, techniques of merchandising, store operation. Planning, organizing, controlling operations. Buying, pricing, promoting. Accounting procedures, expense management. Managerial approach through cases. *Prerequisite:* 11.301 or permission.

11.501 Consumer Markets (3)

Consumer income, expenditure, savings. How consumers exercise economic sovereignty. Competition by industries, retailers for consumer dollar. Recommended for marketing, retailing, real estate, economics, sociology students. *Prerequisites:* 19.101 or 10.442, 69.202 or 69.400, 11.301 or 11.300 or graduate standing.

11.502 Marketing Research (3)

Information collection, interpretation, presentation for shaping marketing objectives, policies, planning. Methodology; analytic techniques; sources of data. *Prerequisite:* 69.202 or 69.400.

11.583 Real Estate Market Analysis (3)

See *Real Estate*.

11.504 Government and Marketing (3)

Influence of federal government on marketing decision-making. Effects of government purchases on private activity. Marketing information, services of government. Regulation. Impact on private enterprise. *Prerequisite:* 11.300 or permission.

11.505 Industrial and Government Markets (3)

Nature, extent of market for industrial goods, services. Direct buying for industrial, government use. Quality standards. Practices, procedures in marketing to government. Text, cases and lectures. *Prerequisite:* 11.501 or graduate standing.

12.565 Physical Distribution Management (3)

See *Transportation*.

11.601 Marketing Management (3)

Factors affecting marketing management decisions. Demand analysis, buyer behavior, forecasting; competitive analysis; distribution structure, locational patterns; cost analysis; optimizing. Planning marketing programs. Determining product, channel, price, promotion policies. *Prerequisite:* permission.

11.701 Seminar in Marketing (3)

Advanced case problems; critical review of marketing thought, literature; analysis of current trends, problems; individual research and a report of results. Required of students electing the Marketing Comprehensive Examination. *Prerequisite:* minimum of 6 graduate credits in Marketing.

11.702 Seminar in Marketing Research (3)

Use of advances in technology in market research. Analytical models, forecasting problems. Application of marketing research in physical distribution management. Emphasis on cases, problems and individual research projects. *Prerequisites:* 11.501 or 11.505, 11.502 and 10.457.

FOOD MARKETING**11.546 Food Merchandising (3)**

Buying procedures; market operations; costs; profit margins. Sales planning; pricing; advertising; sales promotion. Relations with suppliers. Having right items at the right time.

11.548 Food Store Management (3)

Administration of food stores. Supervision, development of personnel. Expense control. Customer services. Ordering, receiving, storing, displays, marking. Housekeeping, safety. Record keeping, reports. Com- See *Technology of Management*, page 235.

INTERNATIONAL MARKETING

See *International Business*.

RETAILING**11.540 Retail Buying (3)**

The buyer: functions and responsibilities. Pre-buying preparation; selecting new lines; ordering. Resident buying. Buying and merchandising. Problems in buying various types of goods.

SALES MANAGEMENT**11.551 Sales Management (3)**

Organization of sales department. Qualifications, duties of sales manager. Recruitment, selection, training. Sales campaigns. Sales, cost control. *Prerequisite:* 11.301 or permission.

11.552 Distribution Cost Analysis (3)

Marketing data as management tools to reduce distribution costs, increase selling efficiency. Analyzing distribution costs, profits by products, customers, territories. *Prerequisite:* 11.502.

Full time male juniors planning careers in food marketing may apply for Giant Food Store Scholarship-Internships for their senior year.

Production (Industrial) Management**10.481 Principles of Production (3)**

Organization, operation of industrial enterprises. Economics of production. Organization, management of physical plant. *Prerequisites:* 10.307 or 10.400, 19.101 or 10.442.

10.581 Work Analysis (3)

Analysis of work methods, motion economy, individual's capacity for work. Measuring efficiency; fair day's work; job standardization; work measurement. Practical problems. Laboratory sessions.

Operations Research

See *Technology of Management*, page 235.

10.582 Value Management (3)

Use of Value Engineering/Value Analysis as a management tool. Planned methodology and stimulated creativity to increase effectively profit potential by scientifically reducing costs.

10.583 Production and Material Control (3)

Objectives, application, organization of production control. Coordination with sales, manufacturing forecasts. Inventory control. Materials handling: selecting equipment, cost elements, training programs. *Prerequisite:* 10.481 or equivalent experience.

69.570 Quality Control (3)

See *Statistics*.

12.565 Physical Distribution Management (3)

See *Transportation*.

57.526 Industrial Psychology (3)

See *Psychology*.

10.781 Seminar in Production Management (3)

Case problem seminar to develop skill in understanding and ability to deal with problems involved in management of industrial enterprises. *Required of students electing Production Management Comprehensive Examination. Prerequisite:* at least 6 graduate credits in Production Management.

PURCHASING**11.503 Purchasing Management (3)**

Contribution to efficient operations. Policies, procedures, organization. Special reference to industrial goods by manufacturers, institutional purchasers. Recommended for marketing, sales management, production, general management students.

11.703 Seminar in Purchasing and Materials Management (3)

Advanced analysis of problems in purchasing, procurement, materials management. Coordination of production planning, inventory control, purchasing. Application of integrated data processing. Case discussion, supervised research.

12.565 Physical Distribution Management (3)

See *Transportation*.

12.540 Public Relations in Business (3)

The role of Public Relations in Business, the scope and nature of the function, the policy role of Public Relations within the corporation.

12.740 Public Relations in Business Seminar (3)

A case method Seminar designed to bring into focus all of the areas of Public Relations in Business. Cases are concerned with top level corporate problems. *Prerequisite:* 12.540 or permission.

Real Estate and Urban Development Planning**11.476 Fundamentals of Real Estate Investment (3)**

Principles, strategy. Risk, risk analysis. Market, market analysis. City growth, structure. Location property analysis. Mortgage markets. Foundation course, particularly valuable for those wishing background for investing in real estate.

11.477 Real Estate Transactions (3)

(Formerly 11.576) Principles, practices of listing, selling, title, transfer. Drawing documents. Contracts, deeds, financing, other instruments. Ownership rights, liens, taxes, assessments, other claims on real property.

11.570 Urban Development Systems (3)

Urban growth, structure, development; distribution of economic activity; economic base and input-output analysis; transportation, communication systems; development of public facilities, urban plants. Function of real estate, other business enterprises in urban development process.

11.577 Real Estate Administration (3)

Management of real estate enterprises in a changing urban environment. Capstone course for undergraduates utilizing a computerized urban systems simulation model (land use and development game). *Prerequisite:* 11.476 or 11.477 or graduate standing.

11.578 Real Estate Law (3)

Legal aspects of real estate transactions for non-lawyers. Acquisition, encumbrance, transfer. Rights, obligations of parties. Survey of law, analysis of cases. *Prerequisite:* 11.476 or 11.477 or 31.401 or graduate standing.

11.579 Home Building (3)

Site selection. Design, building codes, zoning. Construction materials. Landscaping. Cost, financing. Building contracts.

11.580 Apartment Construction (3)

Site selection, land planning, economic analysis, zoning, building codes. Design, materials, construction methods, management. Relationship to community growth, development. Trends, innovations.

11.584 Mortgage Banking (3)

Financing methods. Sources of funds, mortgage and capital markets, federal agencies. Direct lending. Offered with the cooperation of Mortgage Bankers Association of Metropolitan Washington. *Prerequisite:* 11.476, 11.477, or 11.578, or graduate standing.

11.683 Real Estate Market Analysis (3)

Analysis of real estate demand, supply in a local market. Sources of information. Analysis of population, changing city and housing markets. Forecasting. *Prerequisite:* 11.476, or graduate standing.

11.685 Land Planning and Use (3)

Land values and utilization. Location problems of consumers, businesses, industries, households. Changes in land use patterns produced by market forces and public policies. *Prerequisite:* 11.476 or graduate standing.

11.776 Seminar in Real Estate Administration (3)

Integrating case problem seminar to provide educational background for effective administration of varied activities of real estate firms. *Required of students electing Real Estate Comprehensive Examination.*

11.778 Seminar in Land Planning and Use (3)

Land planning and use from interdisciplinary point of view. Roles of land economics, government planning, and private sector. Urban renewal, new towns. Metropolitan problems. *Recommended background:* 11.585.

11.779 Seminar in Housing and Urban Development (3)

Housing goals; federal policy, local programs, role of private enterprise. Sources, uses of development capital, inter-regional flow of funds, mortgage market problems. Technology; housing for low income families, information data systems, infrastructure.

11.780 Doctoral Seminar in Literature of Real Estate and Land Planning (3)

Reading, analysis of major contributions to philosophy, methodology, concepts. Group analysis, seminar discussion, individual research projects. *Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor.*

31.008 Institute on Tax Planning in Real Estate (No credit)

31.401 Property Management Institute I (3)

31.501 Property Management Institute II (3)

31.504 Institute on Real Estate Appraisal I (3)

31.505 Institute on Real Estate Appraisal II (3)

(see *Institutes*)

Research and Development Management

See "Technology of Management" which begins on page 235.

Statistics

The Department of Mathematics and Statistics cooperates with the School both by offering service courses and by providing advanced courses for undergraduates pursuing the B.S. in Business Administration with a major in Statistics as well as graduate students electing Business Statistics as a Comprehensive Examination field. For description, see the individual sciences course listings.

Technology of Management

(Joint: School of Government and Public Administration and School of Business Administration)

The general designator of The Technology of Management is used to comprehend a broad spectrum of the systems characteristic of contemporary, and future, information and managerial methods and institutions.

For complete descriptions of programs and courses in Computer Systems, Management Information Systems, Operations Research, Research and Development Management and Scientific and Technical Information Systems, see p. 149; also, 235.

Transportation, Logistics, and Traffic Management

12.462 Fundamentals of Transportation and Logistics (3)

Study of spatial relations in business; economics of transportation service and pricing; user v. carrier views; location theory and practice; geography of market structures; business logistics concept and function. *Prerequisite:* 19.101 or 10.442.

12.562 Transportation Theory and Regulation (3)

Relation of transportation to economic, political, and social organization and to national development; economic theory applied to transportation; regulation and problems of national policy. *Prerequisite:* 12.462 or graduate standing.

12.563 International Transportation Problems (3)

Structure, functions, operation of carriers engaged in overseas air and ocean transportation. Rates, services, regulation, governmental policies. *Prerequisite:* 11.526 or 12.462 or permission of instructor.

12.565 Physical Distribution Management (3)

Physical distribution of products from assembly line to consignee; plant location theory; case studies relating to transportation, materials handling, inventory control, and warehousing in distribution systems. *Prerequisites:* 12.462 or graduate standing, and 10.481 (latter may be taken concurrently).

12.566 Traffic Management (3)

Management procedures; factors determining rates; rate structures and tariffs; classification; routing of traffic; carrier's liability; claims. Case studies in distribution and traffic management. *Prerequisite:* 12.565.

12.568 Interstate Commerce Law and Commission Practice (3)

Rules of procedure before regulatory bodies; rules of law; decisions of special interest in traffic administration; practitioner's code of ethics; due process; preparation of cases. *Prerequisite:* 12.562 or 12.566 or traffic management experience.

11.570 Urban Development Systems (3)

See *Real Estate*, p. 168.

12.571 Trends and Problems in Transportation (3)

Principal issues and problems facing carriers of various modes of transportation in traffic, operation, regulation. *Prerequisites:* 12.462 and senior or graduate standing.

12.572 Urban Transportation Fundamentals (3)

Development of and problems of land use; place in metropolitan planning; adjustment to changes in population, industry, and social life; financing; local transit authorities and interstate compacts; rates and service. *Prerequisite:* 12.462.

12.662 Transportation Management (3)

Representative case problems; location of facilities; selection of equipment; market analysis; financing new equipment; scheduling, other distinctive problems; motor carriers emphasized.

Required of M.B.A. candidates electing Transportation as Comprehensive Examination Field.

12.762 Seminar in Transportation (3)

Advanced analysis of problems in public regulation of all modes. Discussion and supervised research. Problems of public policy.

Required of Ph.D. candidates in Business Administration and Economics electing Transportation as Comprehensive Examination Field.

12.763 Seminar in Business Logistics (3)

Theory of business logistics. Management of flow of materials from source of supply through processing to ultimate marketplace delivery. Logistics concept in planning, policy formulation and strategy of production and marketing.

Required of Ph.D. Candidates in Business Administration and Economics electing Transportation as a Comprehensive Examination field.

INSTITUTES IN TRANSPORTATION

- 31.020 Physical Distribution and Traffic Management Institute (No credit)**
- 31.021 Air Transport Management Institute (No credit)**
- 31.022 Railroad Management Institute (No credit)**
- 31.023 Motor Transportation Management Institute (No credit)**
- 31.024 International Symposium on Transportation Pricing (No credit)**
- 31.025 Ocean Shipping and Foreign Trade Management (No credit)**
- 31.026 Urban Transportation Institute (No credit)**

Business-Government Relations—(See Business Administration)

Business Law—(See Business Administration)

Business Management—(See Business Administration)

Chemistry

15.100 Science of Chemistry (3)

Science and human experience. Structure of the atom, the molecule, bonds and their properties. Reactions and equilibria. Organic and biochemical processes. Kinetic molecular theory, radioactivity. Demonstrations. No laboratory. (Not for science majors.)

15.110 General Chemistry I (4)

For those with little or no chemistry background. Atomic theory, nuclear phenomena, and chemical bonding. Matter, energy, and chemical change. Solutions. Three hours of lecture, three and one-half hours of laboratory project work.

15.111 General Chemistry II (4)

Kinetics and equilibrium. Thermodynamics. Electrochemistry. The elements and their compounds treated systematically. Laboratory work includes qualitative analysis. *Prerequisite:* 15.110.

15.200 Chemical Principles (4)

Advanced placement for those with good background in high school chemistry. Emphasis on the theories of general chemistry. Students must complete the year's work with 15.210 and 15.211. Three hours of lecture, three and one-half hours of laboratory project work.

15.210 Qualitative Inorganic Analysis (3)

Inorganic solution chemistry. *Prerequisite:* 15.111 or 15.200.

15.211 Qualitative Inorganic Analysis Laboratory (1)

Practice of the separation and characterization of the more familiar ions. Students who have had 15.111 need not take this course. Three hours of laboratory. *Prerequisite:* 15.200.

15.310 Organic Chemistry I (3)

Systematic and theoretical treatment of aliphatic and aromatic hydrocarbons, alcohols, halides, and ethers. Ionic and free radical reactions. Stereochemistry. Must be taken concurrently with 15.311. *Prerequisite:* 15.111 or 15.210.

15.311 Organic Chemistry I Laboratory (2)

Laboratory theory and practice in synthesis. Introduction to organic qualitative analysis. Must be taken concurrently with 15.310. Six hours of laboratory. *Prerequisite:* 15.111 or 15.210.

15.320 Organic Chemistry II (3)

Aliphatic and aromatic acids, nitrogen compounds, carbonyls, and their derivatives. Introduction to polyfunctional compounds. Must be taken concurrently with 15.321. *Prerequisite:* 15.310.

15.321 Organic Chemistry II Laboratory (2)

Synthesis of polyfunctional compounds. Qualitative organic analysis. Introduction to infrared techniques and gas chromatography. Must be taken concurrently with 15.320. Six hours of laboratory. *Prerequisite:* 15.311.

15.350 Quantitative Analysis (3)

Theory of gravimetric and volumetric analysis. The balance. Statistical analysis of data. Spectrophotometry. Potentiometry. *Prerequisite:* 15.320.

15.351 Quantitative Analysis Laboratory (2)

Practice of gravimetric and volumetric analysis. Use of a spectrophotometer and a pH meter. Analysis of mixtures. Project work. Must be taken concurrently with 15.350. *Prerequisite:* 15.320.

15.400 Physical Chemistry I (4)

Kinetic theory, particles and fields, thermodynamics, quantum theory, Schrodinger equation solutions, molecular motions, probability, statistical mechanics, thermodynamics, thermodynamic quantities from partition functions, atomic structure, orbital functions. Three hours of lecture, four hours of laboratory a week. *Prerequisites:* 15.210, 15.221, 41.223.

15.401 Physical Chemistry II (4)

Perturbation, variation, valence-bond and molecular orbital methods, structure and spectroscopy, excited states, nuclear and electron magnetic spectroscopy, intermolecular forces, kinetics, phase rule, electrochemistry, surfaces. Three hours of lecture, four hours of laboratory. *Prerequisite:* 15.400.

15.460 Instrumental Quantitative Analysis (3)

Theory of optical, electroanalytical and spectrophotometric methods; emission spectrography; flame photometry; atomic absorption spectrophotometry; polarography; amperometry; coulometry; potentiometry. Analysis of errors. *Prerequisites:* 15.400, 15.350 and 15.351.

15.461 Instrumental Quantitative Analysis Laboratory (2)

Practice of optical, electroanalytical and other instrumental methods. Project work. Must be taken concurrently with 15.460. *Prerequisites:* 15.400, 15.350 and 15.351.

15.490 Cooperative Work-Study Program (No credit)

Work and study at cooperating research laboratories for six-month periods. Contact Dr. Doris Hadary for information. *Prerequisite:* permission, Dr. Hadary.

15.009 Glassblowing (No credit)

Demonstrations and laboratory practice in the repair, operation, and construction of glass apparatus. Permission of Department required. One hour of demonstration, three hours of laboratory. Laboratory fee, all students, \$60.00.

15.520 Advanced Organic Chemistry I (3)

Theoretical and systematic organic chemistry. Stereochemistry and electronic effects. Ionic and free radical reactions. *Prerequisites:* 15.320 and 15.401.

15.521 Advanced Organic Chemistry II (3)

Theoretical and systematic organic chemistry. Rearrangements and aromatic chemistry. Steroids. *Prerequisite:* 15.520.

15.522 Qualitative Organic Analysis (3)

Identification of organic compounds including classical procedures and modern techniques such as infrared analysis and gas chromatography. Separation and identification of organic mixtures. One hour of lecture, 6 hours of laboratory. *Prerequisite:* 15.320.

15.546 Chemical Thermodynamics (3)

Concepts of temperature, thermodynamic properties, specific heats. Laws of Thermodynamics; their application to thermochemistry, chemical equilibrium and phase changes. *Prerequisite:* 15.401.

15.550 Advanced Inorganic Chemistry (3)

The classical atom. The quantum mechanical atom. Ionic bonding, lattice energy. Covalent bonding, valence bond approach, molecular orbital approach. Dipole—dipole interactions. Van der Waal's forces. *Prerequisite:* 15.400.

15.551 Topics in Inorganic Chemistry (3)

Bonding in metals. Transition metal chemistry including ligand field theory. Jahn Teller effect. The trans effect. Inorganic materials, boron hydrides, rare gas compounds, inclusion compounds, inorganic polymers. *Prerequisite:* 15.550.

15.560 Biochemistry I (4)

The chemistry of carbohydrates, proteins, and fats. Blood and respiration. Renal function and acid-base balance. Three hours of lecture, four hours of laboratory. *Prerequisites:* 15.320 and 15.401.

15.561 Biochemistry II (4)

General properties of enzymes. Biological oxidation. Metabolism of carbohydrates, proteins and fats. Three hours of lecture, four hours of laboratory. *Prerequisite:* 15.560.

15.580 History of Chemistry (2)

Development of the concepts in chemistry. Biographies of eminent chemists. *Prerequisite:* 30 credits in chemistry.

15.589 Advanced Topics in Chemistry (3)

Study of selected special topics in Chemistry. Designed especially for secondary school science teachers as part of an In-Service Program. May be repeated for credit if a different topic is covered. *Prerequisite:* permission of department head.

15.600 Advanced Physical Chemistry I (3)

Classical mechanics, quantum mechanics, spectra, M.O. theory, statistical quantum thermodynamics, and intermolecular forces. *Prerequisite:* 15.401.

15.601 Advanced Physical Chemistry II (3)

Chemistry of the liquid and solid states, interaction of electromagnetic waves with matter, cooperative phenomena, theory of rate processes, and irreversible thermodynamics. *Prerequisite:* 15.600.

15.608 Special Topics in Physical Chemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.600.

15.610 Advanced Inorganic Analytical Chemistry (3)

Systematic treatment of modern analytical methods and separations. *Prerequisite:* 15.460.

15.618 Special Topics in Analytical Chemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.610.

15.619 Inorganic Preparations (3)

Theory and practice of inorganic preparations. Synthesis of representative compounds. One hour of lecture, 6 hours of laboratory. *Prerequisites:* 15.460 and 15.550.

15.623 Organic Preparations (3)

Preparative methods of organic chemistry. Emphasis on techniques such as vacuum distillation, chromatography, extractions. Preparations from the original literature. One hour of lecture, 6 hours of laboratory. *Prerequisite:* 15.520.

15.628 Special Topics in Organic Chemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisites:* 15.521.

15.632 High Polymer Chemistry (3)

Concepts of macromolecules and their non-homogeneous nature. The physical-organic chemistry of polymerization. Behavior and structure of polymers. Demonstrations of special laboratory techniques. *Prerequisites:* 15.320 and 15.401.

15.640 Colloid and Surface Chemistry (3)

Application of physiochemical principles of colloidal systems. Solid and liquid surfaces, sorption, large molecules in solution, structure of natural and synthetic colloids. *Prerequisite:* 15.401.

15.642 Chemical Kinetics (3)

Order and molecularity of reactions. Activated complex; theory for elementary reactions. Reactions in solutions and on surfaces. Complex reaction mechanisms. Non-isothermal kinetics. *Prerequisite:* 15.400.

15.643 Quantum Chemistry I (3)

The eigenvalue problem. Operators and matrices. Introduction to group theory. Elementary wave mechanics. Atomic spectra. Molecular orbital theory. *Prerequisite:* 15.600.

15.644 Quantum Chemistry II (3)

Interpretation of electronic, rotational, and vibrational spectra of molecules. Quantum mechanical calculations using LCAO-MO-SCF techniques. *Prerequisite:* 15.643.

15.658 Special Topics in Inorganic Chemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.551.

**15.668 Special Topics in Biochemistry (3)
15.669**

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.561.

15.670 Electrochemistry I (3)

Double layer and electrokinetic phenomena; electrode processes; nonaqueous solvents; corrosion; electroplating; batteries; fuel cells; biochemical processes. *Prerequisite:* 15.401.

15.671 Electrochemistry II (3)

Application of Electrochemistry to energy conversion processes (batteries and fuel cells), electroplating, corrosion and detection. *Prerequisite:* permission.

15.700 Seminar in Chemistry (1)

Selected topics. Preparation and presentation of a paper of professional quality. *Prerequisite:* permission of Department.

15.797 Master's Thesis Seminar (3-6)**15.799 Doctoral Dissertation Seminar (6-12)****Christian Thought—(See
Philosophy and Religion)****Church Management—(See
Business Administration)****Church Music—(See
Music)****Commercial Banking—
(See Business
Administration)**

Communication

**17.100 Introduction to Mass
Communication (3)**

Historical, social, legal and economic aspects of the mass media; current practices and responsibilities, communication aspects of public relations and advertising. Required of all department majors.

**17.101 Techniques of Mass
Communication (3)**

Study of the basic written techniques of mass communication. Intensive practice in various forms of writing for the mass media. Three-hour weekly laboratory arranged. Required of all department majors. *Prerequisite:* 17.100.

17.320 News Reporting I (3)

Fundamentals of news gathering, news writing and news judgment for all the media; study of news sources, research and interview techniques; supervised writing. *Prerequisite:* 17.101.

**17.322 Editorial Policies and Methods
I (3)**

Basic instruction and practice in the editing process for all the media, including copy editing and editorial judgment. Use of wire copy. *Prerequisite:* 17.320.

17.325 Feature Article Writing (3)

Study of various types of feature articles for newspapers, syndicates, magazines, and specialized publications; practice in research, interviewing, writing, revision and the marketing of articles. *Prerequisite:* 17.322.

17.333 Fundamentals of Radio-TV-Film (3)

Study of fundamental principles and professional practices in broadcast and film media. Students produce and perform basic experiments and exercises. Laboratory hours arranged.

17.342 Magazine Journalism (3)

Survey of contemporary periodicals, their backgrounds, trends, functions, staff organization, free lance sources, editorial policies and practices. *Prerequisite:* 17.100.

17.343 Photography (3)

Study of photographic requirements and professional techniques for newspapers, magazines, syndicates, and specialized publications. Picture planning and taking; selecting and editing photographs for publication. Three-hour weekly laboratory arranged. *Prerequisite:* permission of department.

**17.381 Development of Broadcasting-
Film (3)**

A comprehensive study of trends and historical precedents in the broadcast and film industries of the United States with emphasis on control, financial, governmental, program, and technical factors.

**17.383 Radio Production and
Programming (3)**

Intensive study of radio programs and their determinants. Students produce, direct and criticize assignments.

17.385 Broadcast Journalism I (3)

Practice in the special application of news writing and editing to the broadcast media with emphasis on editorial responsibility. Use of wire copy and tape recorders in producing news broadcasts. Production of at least two radio documentaries. *Prerequisite:* permission of instructor.

ELECTIVE COURSES

The following courses are not required in the degree programs. They are occasionally offered, when resources permit, as electives or for non-degree and off-campus programs through the College of Continuing Education, Intersession or Summer Session:

17.344 Business Journalism (3)

Survey of policies and practices of newspapers and periodicals devoted to business and industry; association publications, employee publications, house organs, and newsletters. *Prerequisite:* 17.101.

17.345 Community Journalism (3)

Study and discussion of special problems and practices of community, suburban, and special-interest dailies and weeklies. *Prerequisite:* 17.101.

17.346 Scientific and Technical Journalism (3)

Study and practice of the basic techniques of writing and editing scientific and technical material for both the general audience and the specialist. *Prerequisite:* permission of Department.

17.382 Writing for Broadcast-Film (3)

Study and application of basic techniques of script writing for broadcast and film media. Students write and criticize assignments.

17.384 TV Studio Operations (3)

Principles and practice in the operation of television studio equipment with laboratory. *Prerequisite:* 17.381.

17.500 Communication History (3)

Development of newspapers, magazines, radio, television and motion pictures, and their influence on contemporary ethics and practices. *Prerequisite:* permission of Department.

17.501 Legal Aspects of Communication (3)

Current legal problems, theory of controls in journalism, visual communication, television and radio. Analysis of libel suits, copyrights, infringement. No previous knowledge of law required. *Prerequisite:* permission of Department.

17.503 Mass Media and Society (3)

Role of newspapers, magazines, radio, television and motion pictures, and their impact on society. *Prerequisite:* permission of Department.

17.507 Freedom of Information (3)

Investigation of access and barriers to information at local, state, national and international levels. Rights and responsibilities of communication media, government agencies, and the public. *Prerequisite:* permission of Department.

17.520 Editorial Policies and Methods II

Advanced training to develop editorial judgment and skills in processing material for publication; study of problems and practices in making assignments, handling departments, and dealing with wire copy; 4-hour laboratory arranged. *Prerequisite:* 17.322.

17.521 Editorial Interpretation

Editorial page policies and practices; supervised writing of various types of editorials on current subjects; analysis of editorial columns and interpretative reviews. *Prerequisite:* permission of instructor.

17.523 Advanced Photography (3)

Advanced study of photography, especially for publication purposes, including use of cameras, darkrooms, printing, and picture editing. *Prerequisites:* 17.343, permission of instructor.

17.524 Reporting II (3)

Advanced training in writing news for publication, with emphasis on specialized areas of coverage; student assignments in selected fields for one day a week. *Prerequisite:* permission of instructor.

17.526 Advanced Feature Article Writing (3)

Principles and methods of writing feature stories for publication. Individual attention to problems. Students submit articles for publication. *Prerequisite:* 17.325.

17.528 Broadcast Journalism II (3-6)

For advanced students. Production of news broadcasts, including documentary. Actual broadcast of news programs. Examination of broadcast practices; effects of broadcast journalism on society. *Prerequisites:* 17.381 and permission of instructor.

17.531 International Communication Systems (3)

Communication of news and opinion among nations and under varying types of social, political, and economic systems. Uses of mass media in national development; chief patterns of mass communication throughout the world. *Prerequisite:* permission of Department.

17.532 Publication Layout and Design (3)

Study of layout, typography, design, and printing in the planning and production of newspapers, magazines, books, brochures, and folders. *Prerequisite:* permission of Department.

17.536 Government News Reporting (3)

Special problems in covering the White House, Congress, U.S. Departments, Agencies and Courts, utilizing facilities in Washington as a laboratory for intensive study. Writing practice for one full day a week. *Prerequisites:* 17.320, permission of Department.

17.540 Principles of Public Relations (3)

Historical development of public relations; economic, political and social factors in relations between publics and media in the formation of public opinion. Case studies of current practices in Washington, D.C.

17.542 Promotional Campaigns (3)

Case studies of promotional methods of business, government, and social organizations; development of promotional campaigns by each student for an institution in Washington, D.C. *Prerequisite:* 17.540.

17.544 Public Relations and Government (3)

Analysis of public information programs conducted by governmental and non-governmental agencies to influence various publics and institutions on key government issues. Intensive research and journalistic reporting of actual information programs in Washington, D.C. during the semester. *Prerequisite:* 17.540.

17.545 Public Relations in Business (3)

Case studies in business and industrial relationships with various publics, i.e., labor, trade, dealer, customer, stockholder, and community. *Prerequisite:* 17.540.

17.558 History of Motion Pictures (3)

Historical development of the motion picture from a laboratory curiosity until the present day. Films, primarily of American origin viewed, discussed and criticized.

17.583 Film Production and Direction (3)

An intensive introduction to all aspects of film production and direction including writing, cinematography, editing and criticism of motion pictures. *Prerequisite* for majors: 17.333.

17.584 Television Production and Direction (3)

Comprehensive introduction to television program production. Students write, produce, direct, and criticize television assignments. *Prerequisite:* 17.333.

17.588 Television Programming (3)

Study and application of the principles of planning radio and television programs and program schedules. *Prerequisite:* 17.381.

17.589 Seminar in Broadcasting and Film (3)

Study in depth of certain areas and problems in broadcasting and film not covered in the regular sequence of courses. Topics will vary from semester to semester. May be repeated for credit when topics vary. *Prerequisite:* permission of Department.

17.710 Seminar in Public Affairs (3)

Intensive study of public affairs and current events, with special attention to communication problems in Washington. *Prerequisite:* permission of Department.

17.720 Seminar in Journalism (3)

Specialized and current problems in journalism, with emphasis on individual research projects. Topic of the seminar varies. *Prerequisite:* permission of Department.

17.724 Reporting of Public Affairs (3)

Advanced training in writing news for publication, with emphasis on specialized areas of coverage; Assignments in selected fields for one full day a week. Conducted with Seminar in Public Affairs (17.710). *Prerequisite:* permission of Department.

17.740 Seminar in Public Relations (3)

Special problems in the formulation of policies for long-range public relations programs. Emphasis on individual research projects. *Prerequisite:* permission of Department.

17.760 Methodology of Communication Research (3)

Introduction to the logic of scientific inquiry and to the strategy and content of research in mass communication. Purpose is to develop both substantive awareness and critical sophistication of mass media research. *Prerequisite:* permission of Department.

THESIS SEMINAR**17.797 Master's Thesis Seminar (3-6)**

For those students starting theses in communication. Do not register without formal approval of thesis topic by Department faculty.

17.591 Internship (1-9)

Supervised study of communication practices at selected organizations. See Department of Communication Chairman for placement. *Prerequisites:* 6 hours in major and recommendation of faculty adviser.

ADVANCED ELECTIVE COURSES

The following courses are not required in the degree programs. They are occasionally offered when resources permit, as electives or for non-degree and off-campus programs through the College of Continuing Education, Intersession or Summer Session.

17.527 Advanced Scientific and Technical Journalism (3)

Advanced study and practice of writing and editing scientific and technical manuals, reports, proposals, articles, and films. *Prerequisite:* 17.346.

17.541 Publicity Writing (3)

Writing for public relations, publicity, and promotional programs; preparation of news releases, articles for magazines and trade journals, broadcasting scripts and promotional booklets. *Prerequisite:* 17.320 and 17.540.

17.543 Public Relations Abroad (3)

Problems of public relations in international affairs; case studies of American business public relations practices in other countries. *Prerequisite:* permission of Department.

17.546 Audio-Visual Communication (3)

Study of the problems of communicating through modern audio-visual media. Emphasis upon communication studies and findings in perception, learning, attention and related areas. Students prepare materials and gain experience with audio-visual devices and systems.

17.561 Advanced Writing for Broadcast-Film (3)

Study, writing, and criticism of documentary, dramatic and other types of complex programs for television and film. *Prerequisite:* permission of Department.

17.581 Educational Broadcasting (3)

History, role, current problems, and trends in educational television and radio including studies of organizations, programs, networks, and systems.

17.585 TV Production and Direction II (3)

Advanced training in longer, more sophisticated television programs. *Prerequisite:* 17.584.

17.782 Broadcasting and the Public Interest (3)

Analysis of the responsibilities of the broadcaster in terms of "public interest, convenience, and necessity"; comparison of U.S. and foreign programming. *Prerequisite:* permission of Department.

**Comparative Banking—
(See Business)**

**Computer Systems—(See
Technology of Manage-
ment)**

**Construction Management
—(See Business Adminis-
tration)**

**Contemporary International
Relations—(See Interna-
tional Studies)**

**Correctional Administra-
tion—(See Law Enforce-
ment Administration)**

**Counseling, Educational—
(See Education)**

**Counseling Psychology—
(See Psychology)**

**Data Processing Systems—
(See Technology of Man-
agement)**

Design—(See Art)

**Diplomacy and Foreign
Policy Formation—(See
International Studies)**

**Earth Sciences—(See
Chemistry)**

Economics

19.100 Introduction to Economics I (3)

Institutional framework. Fundamental aggregative relationships of income, consumption, investment. Includes resources, economic growth, public and private finance, national income, business cycles, national economic policy. Every semester.

19.101 Introduction to Economics II (3)

Elementary theory of price, forms of imperfect competition, income distribution, public policy, international economics, economic development, comparative economic systems. *Prerequisite:* 19.100. Every semester.

19.300 Intermediate Price Theory: Resource Allocation and the Price System (3)

Theory of relative prices of commodities and productive services under perfect and imperfect competition. Theory of the firm and theory of consumer demand. *Prerequisite:* 19.101. Fall and Spring semesters.

19.301 Intermediate Income Theory: Unemployment, Inflation and Growth (3)

Basic concepts and theory of income, employment and economic growth. *Prerequisite:* 19.101. Fall and Spring semesters.

19.303 Landmarks of Economic Theory (3)

History of economic thought as exemplified by the writings of Smith, Ricardo, Mill, Marx, Marshall, Veblen, Keynes; historical settings in which their ideas developed. *Prerequisite:* 19.101. Fall semester.

19.304 Labor Economics (3)

Labor markets and wage structure. Collective bargaining. Wage theories and policies. Labor productivity, real wages, income, employment, unemployment, comparative labor problems. *Prerequisite:* 19.101. Spring semester.

19.305 Introduction to Quantitative Economics (3)

Selected topics from analytical geometry, calculus, linear algebra, statistics, computers; their application to problems in economic research and analysis. *Prerequisites:* 41.100 and 19.101. Fall and Spring semesters.

19.306 Money and Banking (3)

Role of money and credit in the economy. The structure of the money market. Structure and operations of commercial banks. The Federal Reserve System and instruments and processes of monetary policy. Introduction to monetary theory. *Prerequisite:* 19.101. Offered for Economics majors in Fall semester and for non-economics majors in Spring.

19.307 Economic Development (3)

Theories of Economic Growth (Classical, Marxian, Schumpeterian, Keynesian, etc.). Simple growth models, agriculture, population problems, development planning. *Prerequisite:* 19.101. Fall semester.

19.308 The Economic Development of the United States (3)

Long term trends in the U.S. economy. The trans-plantation of economic institutions from Western Europe, the basic pattern of development, trends in productivity, wages, prices, national income, savings, investment and capital formation. *Prerequisite:* 19.101. Spring semester.

19.309 Public Economics (3)

Theory of taxation, public expenditure and fiscal policy. Comparative survey of fiscal institutions in the U.S. and abroad. Government approaches to income redistribution and problems of poverty: negative income tax, family allowances, etc. *Prerequisite:* 19.101.

19.310 Introduction to Econometrics (3)

Theory of economic statistics and statistical techniques. Emphasis, applying statistical models to economic data. Introduction to probability, significance testing, elements of correlation, regression analysis, and testing hypotheses. *Prerequisites:* 19.101 and 41.100 or equivalent. Spring semester.

19.311 International Economics (3)

Fall semester course is for non-economics majors. Less theoretical than Spring semester and more concerned with current trends and policy issues. Spring semester course, economics majors only. Stresses the theory of international trade, international payments, factor movements, foreign exchange and the international monetary system. *Prerequisite:* 19.101.

19.312 Comparative Economic Systems (3)

Principles governing pricing, income distribution, productivity, investment, economic stability, growth under various forms of social, political, and economic organization. *Prerequisite:* 19.101. Fall semester.

19.313 Current Economic Problems (3)

Selected economic problems facing the U.S., i.e. economic development of depressed regions—Appalachia, means of eliminating poverty, economic aspects of the racial crisis, etc. *Prerequisite:* 19.101.

19.314 Senior Seminar (3)

To encourage all economics majors to do independent research during their senior year. Topics will be chosen by professors and students involved. *Prerequisite:* Senior standing in economics. Fall and Spring semesters.

19.315 Urban Economics (3)

Economic aspects of urban problems, including poverty, housing, taxation, income distribution, discrimination, etc. Efforts will be made to analyze economic aspects of various proposed remedies, including urban renewal, family allowances, cooperatives, etc. *Prerequisite:* 19.100. Fall semester.

19.318 Asian Economic Problems (3)

Lecture and discussion course on economic problems, especially those related to modernization, in contemporary East, Southeast, and South Asia. *Prerequisite:* 19.101. Fall semester, odd-numbered years.

GENERAL ECONOMIC THEORY

19.500 Price Theory (3)

The necessary elements of price theory for graduate students enrolled in the terminal M.A. program. *Prerequisite:* 19.101.

19.501 Income Theory (3)

The necessary elements of income theory for graduate students enrolled in the terminal M.A. program. *Prerequisite:* 19.101.

19.703 Microeconomic Analysis I (3)

Theory of demand, of production and distribution, of supply. *Prerequisite:* permission. Fall semester.

19.704 Microeconomic Analysis II (3)

Theory of market structure and performance. Capital theory and theory of economic growth. Welfare economics. *Prerequisite:* 19.703.

19.705 Income Theory I (3)

The Keynesian model of income determination. Detailed study of consumption, investment and interest rate theories. The Keynesian and classical systems compared. *Prerequisites:* 19.301 and 19.306 or permission. Fall Semester.

19.706 Income Theory II (3)

Macroeconomic models. Theories of inflation. Monetary and fiscal theories. Theories of growth. *Prerequisite:* 19.705. Spring semester.

19.781A Seminar in Economic Theory: Price (3)

Advanced analysis of problems in the theory of value and distribution. Discussion and supervised research. *Prerequisite:* permission of instructor.

19.781B Seminar in Economic Theory: Income (3)

Advanced analysis of problems of income determination and economic growth. Discussion and supervised research. *Prerequisite:* permission of instructor.

19.781C Seminar in Economic Theory: Welfare (3)

Advanced analysis of problems in welfare economics. Discussion and supervised research. *Prerequisite:* permission of instructor.

QUANTITATIVE ECONOMICS

19.521 Quantitative Economic Analysis (3)

Intermediate mathematical analysis of economic phenomena, elements of model building, game theory, and linear programming. *Prerequisite:* 19.305 or permission. Fall semester.

19.522 Econometrics I (3)

Theory of economic statistics and development of statistical models to be applied to economic data. Probability theory, statistical criteria, hypothesis testing, correlation and regression analysis, analysis of variance; emphasis will be upon application to economic data. *Prerequisite:* 19.521.

19.523 Econometrics II (3)

Review of regression analysis and statistics, testing of hypotheses, a rudimentary treatment of the problem of aggregation, identification, multicollinearity and serial correlation; sources of economic data; an examination of computers in economics. *Prerequisite:* 19.521. Spring semester.

19.721 Mathematical Economics (3)

Application of mathematical methods to the study of economics. Advanced study of static and dynamic models. *Prerequisites:* 19.521, 41.222 and 41.223 or permission.

19.722 Advanced Econometrics (3)

Advanced quantitative analysis. Construction of stochastic economic models. Problems of specification, estimation, verification and prediction. *Prerequisites:* 19.521, 41.222 and 41.223 or permission.

19.782 Seminar in Quantitative Economics (3)

Basic methodological problems in research; workshop in research in selected economic areas. Discussion and supervised research. *Prerequisite:* permission.

MONEY, CREDIT AND BANKING**19.523 International Finance and Capital Movements (3)**

Balance of payments accounts, modern theories concerning interrelations between price level, balance of payments, and capital movements. Foreign exchange markets, foreign investments and capital movements. International financial organizations. The international monetary system and its reform. *Prerequisites:* 19.306 and 19.311. Offered Spring semester of alternate years.

19.531 Financial Markets (3)

Nature and functions of money and capital markets, their sectors and their interrelations. Institutions, instruments and operations. Sources and uses of funds; debt and equity financing. The structure of interest and its function in market relations. Public debt management and effects on market liquidity. Processes of monetary policy and diffusion effects of Federal Reserve operations. Comparative references to leading foreign markets. *Prerequisite:* 19.306. Offered Spring semester of alternate years.

19.731 Monetary Theory (3)

Money and credit as factors influencing income, prices, employment and balance of payments. Behavior patterns in demand for commodities, money and securities, concepts, theories and functions of interest rate, saving and monetary equations and monetary models. Time and liquidity preference and role of financial intermediaries in the monetary process. *Prerequisite:* 19.306. Fall semester.

19.732 Theory and Management of Central Banking (3)

Evolution of central banking and comparative institutional analysis. Relations to government and process of monetary policy formulation. Quantitative and qualitative instruments of monetary policy. Role of monetary policy in internal economic policy and international economic relations. *Prerequisite:* 19.731. Fall semester.

19.780 Seminar in Monetary Economics (3)

Economic and monetary trends and their interrelationship. Federal Reserve policies and government financial operations and their effects on money and capital markets. Review of current economic indicators and monetary and financial statistics; their use for business and monetary analysis. Discussion and supervised research. *Prerequisite:* Permission of instructor.

PUBLIC FINANCE**19.541 Public Economics I (3)**

Theory of public expenditure. Trends in the size of the public sector in the U.S. and abroad. Introduction to budgeting. Theory and practice of fiscal policy for stabilization and growth. *Prerequisites:* 19.301 and 19.306.

19.542 Public Economics II (3)

Theory of taxation. Analysis of income, consumption, wealth and other taxes in the U.S. and abroad. Public expenditure programs for growth and income maintenance. Public debt. Problems of fiscal federalism, etc. *Prerequisite:* 19.541.

19.787 Seminar in Public Economics: Developing Countries (3)

The role of taxation and government expenditure in developing countries. Optimal tax structure. Optimal public expenditure. Role of fiscal policy in stabilization and growth. *Prerequisites:* 19.541 and 19.542 or permission.

INTERNATIONAL ECONOMICS**19.554 Economic Problems of Southern Asia (3)**

A. Economic Problems of Southern Asia: Survey. Analyzes major economic features, problems and policies of the region that includes India, Pakistan, Ceylon, Burma, Thailand, Cambodia, Laos, Viet-Nam, Malaysia, Singapore, Indonesia and the Philippines. *Prerequisite:* Permission. Fall semester.

19.555 Economic Problems of Latin America (3)

Economic geography, population, government organization, public finance and monetary policy, foreign trade, balance of payments, foreign investments, prospects of economic advancement. *Prerequisite:* 19.307. Fall semester.

19.751 International Economic Theory (3)

Theory of international specialization, world trade and development, commercial policy, international economic relations. Balance of payments. *Prerequisites:* 19.300 and 19.301. Fall semester.

19.752 Current International Economic Problems (3)

U.S. balance of payments problems, international economic institutions, the international economy since 1914, current international economic problems, i.e. East-West trade, regional groupings, foreign aid. *Prerequisite:* 19.311 or 19.751. Spring semester.

19.784 Seminar in International Trade and Finance (3)

Study of international monetary and trade theories. Analysis of basic factors influencing policies and trends in international trade, foreign investments, flow of aid. Use of balance of payments and international financial accounts for monetary and economic analysis. Central banks cooperation and monetary reform. International and interregional organizations. Discussions and supervised research. *Prerequisite:* permission. Spring semester.

ECONOMIC DEVELOPMENT**19.561 Development Planning (3)**

Both macro and micro aspects of development planning. Both plan formulation and implementation will be considered. Theory compared with actual experience. Considers selected developed, less developed, socialist, mixed-economy countries in Africa, Asia, Europe, and the Americas.

19.761 Theory of Economic Development (3)

Patterns, theories and models of economic development of advanced and underdeveloped economies. Theoretical concepts and issues in development planning. *Prerequisite:* Permission. Fall semester.

19.762 Current Problems of Economic Development (3)

Trends in living standards, economic planning programs, capital formation, industrial-agricultural techniques, monetary and fiscal structures, income distribution, foreign trade of underdeveloped countries. *Prerequisite:* 19.307 or 19.761. Spring semester.

19.788 Seminar in Economic Development (3)

Advanced study of the problems of underdeveloped countries. Discussion and supervised research. *Prerequisite:* permission. Fall semester.

LABOR ECONOMICS**19.572 History of the U.S. Labor Movement (3)**

Causes and results of organized efforts to regulate the conditions of work and the well-being of workers. Political, economic objectives, social problems surrounding the labor movement. *Prerequisite:* 19.304.

19.771 Labor Economics: Theory (3)

Critical evaluation of contemporary wage and employment theory, analysis of trends affecting labor in modern and traditional societies, its relations to the determination of wages, hours, working conditions. Strategy of collective bargaining. Role of productivity, labor mobility, relative factor prices and industrial organization on wage determination in the firm and in the economy. *Prerequisites:* 19.300, 19.301 and 19.304. Fall semester.

19.772 Current Labor Problems (3)

Application of economic theory to analysis of current labor problems, domestic and foreign; wage policy and wage differentials, manpower policy, poverty, unemployment and underemployment, discrimination, productivity, industrialization, and union policies. *Prerequisite:* 19.771.

HISTORY OF ECONOMIC THOUGHT**19.701 Economic Thought I (3)**

Major figures in the history of economic thought in terms of their general, social and economic thought and the tools of analysis they created. *Prerequisites:* 19.300, 19.301, 19.303. Fall semester.

19.702 Economic Thought II (3)

Special topics in the history of economic thought, with emphasis on topics rather than men. *Prerequisite:* 19.701.

HISTORY OF ECONOMIC DEVELOPMENT**19.707 Economics of American Development (3)**

Statistical and analytical investigation of long-run behavior of national income, population, savings, investment, consumption, labor productivity, et al. affecting economic growth in the U.S. Problems of social control of the growth rate: concepts of dual economy and balanced growth. *Prerequisite:* permission. Fall semester.

19.708 European Economic Development (3)

Origins and development of capitalism in the western world, with emphasis on Britain. Emphasis is placed on economic theory to illuminate the process of historical development. *Prerequisite:* permission. Spring semester.

ECONOMIC POLICY**19.544 Urban Economics I (3)**

General field of Urban Economics including: location theory, housing, transportation, public finance, racial discrimination, man-power training, industrial development, etc.

19.545 Urban Economics II (3)

Certain urban economic problems. Research in these areas emphasized.

19.783 Seminar in National Economic Policy (3)

Economic aspects of leading problems in public policy. Formulation of national economic policy: planning principles and data bases. Discussion and supervised research. *Prerequisite:* permission.

Education

21.250 Mathematics for Elementary School Teachers (3)

Provides pre-service elementary school teachers with background for teaching mathematics. *Prerequisite:* 41.100 or equivalent. Fall, Spring, Summer.

21.300 Foundations of Education: Social and Historical Bases: Philosophical and Psychological Principles (6)

Block-type course. Includes history of education, educational sociology, psychological, sociological, and physiological factors of human growth, development, and the learning process. *Prerequisite to all other courses in the Department.* Laboratory experiences provided. Students provide their own transportation to the field experiences assignments. *Prerequisite:* 57.200 and a grade point average of 1.3. Fall, Spring, Summer.

21.320 Psychology of Education (3)

Fundamental psychological problems encountered in education. Nature and control of learning; theories of motivation; development of skills and knowledge; creative learning and critical thinking. *Prerequisite:* 57.200. Offered only off-campus. Not offered to students who have taken 21.300.

HISTORICAL FOUNDATIONS OF EDUCATION**21.511 History of Education in Western Culture (3)**

Development of Western education from ancient Greece to modern times, emphasizing social, intellectual, religious, economic, and political factors; individual philosophers, and actual educational practices. Spring and alternate summers.

21.512 History of Education in the United States (3)

Development of American education from colonial times to the present; emphasizing cultural forces, intellectual currents, dominant philosophies, actual practices, and major educational problems as related to elementary, secondary, and higher education. Fall and alternate summers.

21.525 Educational Statistics I (3)

Correlation and chi-square (non-parametric statistical methodology).

21.613 Higher Education in the United States (3)

Examination of higher education in the United States. Function, structure, curriculum, students, faculty, government, and financing are among the elements considered. *Prerequisite:* 21.512. Summer.

PSYCHOLOGICAL FOUNDATIONS OF EDUCATION**21.520 Advanced Psychology of Education (3)**

(See description under Core Courses)

21.521 Mental Health in Schools (3)

Development of wholesome relationships involving administrators, teachers, pupils, and other educational personnel. Some phases of the daily work of the teacher in the area of good mental hygiene are considered. *Prerequisite:* 21.520 or department permission. Fall, spring and summer.

21.522 Evaluation of Student Progress (3)

Materials and methods for use in evaluating students' progress, especially at the elementary and secondary school levels. Required of most students working on graduate degree programs in education. *Prerequisite:* One course in statistics. Fall, spring, and summer.

21.622 Developmental Psychology (3)

The psychological as well as physiological aspects of growth and development stressing the years from early childhood through adolescence. Spring.

21.623 Learning Theories in Education (3)

The major theories of learning developed by psychologists: Selected research in human learning and the fundamental principles of the learning process. *Prerequisite:* 21.520. Spring.

21.624 The School and Modern Social Problems (3)

Analysis of the social basis of the curriculum. Special reference to pupil needs. Current developments and methods of adapting the school to society. Summer and fall.

21.625 Educational Statistics II (3)

Offered spring.

EDUCATIONAL ADMINISTRATION**21.531 School Administration (3)**

Helps prospective elementary and secondary school administrators acquire better knowledge and understanding of administrative principles, concepts and practices used in the schools. *Prerequisites:* 21.300, 21.350 and teaching experience. Fall or summer.

21.632 Problems of School Management (3)

A problem approach to the study of internal school management; administrative problems related to pupil and teacher personnel. *Prerequisite:* 21.531 or the equivalent. Spring.

21.633 Financial and Business Administration for Schools (3)

School budgets, bonds, and taxes. Selecting, buying and distributing supplies and equipment. Accounting systems for finances and material. Other business aspects of education. *Prerequisite:* 21.531 or the equivalent. Summer.

21.634 Essentials of School Law (3)

Study of laws governing education in the United States, with special reference to the District of Columbia, Maryland, and Virginia. Spring.

SPECIAL EDUCATION**21.541 Special Education for Exceptional Children (3)**

A study of the characteristics of exceptional children and of the problems in providing education programs to meet their needs. *Prerequisites:* 21.300, 21.340, or 21.350 or the equivalent. Fall.

21.542 Special Education for Retarded Pupils (3)

Provisions for class work and group activities for retarded children in public and private schools emphasizing methods, materials, and objectives. *Prerequisites:* (same as for 21.541.) Spring.

21.543 Special Education for Gifted Pupils (3)

Provisions for class work, group, and individual activities for gifted children in elementary and secondary schools. Emphasis on methods, materials and objectives. *Prerequisites:* (same as for 21.541.) Spring.

21.644 Diagnosing and Correction of Learning Disabilities (3)

Diagnosing general and specific learning disabilities. Developmental and remedial techniques for correction of learning disabilities. Clinical experience. *Prerequisites:* 21.520, 57.525 and permission of instructor. Summer.

21.710 Seminar in Teaching: Learning Disabilities

Fall and spring.

31.631 See "Institutes," page 201.

SCHOOL COUNSELING**21.551 Philosophy and Practices in Educational Guidance (3)**

Basis course in guidance programs on elementary, secondary and higher educational levels. Philosophy and practices in guidance, collecting, organizing and using data on students, group and individual guidance, and the role of individual pupil personnel services. *Prerequisite:* 21.300. Fall, spring and summer.

21.552 Analysis of the Individual for Counseling (3)

Pupil appraisal methods, data and problems. Special attention given to personality and intelligence test interpretation. *Prerequisite:* 21.551. Fall and spring.

21.553 Techniques of Counseling in Education (3)

Designed to give the student an understanding of counseling theories and a degree of competence in applying counseling techniques. Students will consider contemporary theories and methods of counseling with practice in interviewing, counseling, and writing case reports. *Prerequisites:* 21.551 and 21.552. Fall, spring and summer.

21.340 Methods and Materials in Secondary Education: General and Special: English, Social Studies, Science, Mathematics, and Foreign Languages (4)

General methods, materials and applications to special subjects fields. Laboratory experiences in the university classroom and in area secondary schools. Students provide their own transportation to the field experiences assignments. *Prerequisites:* 21.300, or the equivalent, a grade point average of 1.5, and admission to a program of teacher education. Fall and Spring.

21.342 Methods of Teaching in Secondary Schools: General (4)

General teaching methods, with some opportunity to apply these principles to certain specialized subject-matter fields. Laboratory experiences in secondary schools in the Washington area and in the use of educational resources. Students provide their own transportation to the field experiences assignments. *Prerequisite:* 21.300, or the equivalent, and a grade point average of 1.5. Offered only off-campus. Not offered to students who have had 21.340.

21.345 Children's Literature (3)

Classic and contemporary prose and poetry, suited to children's interests and abilities. Related authors and illustrators, and history of such literature. Techniques in guiding children's reading including presentation of books, story-telling, and choral reading. Fall, Spring Summer.

21.350 Methods and Materials in Early Childhood and Elementary Education: General and Special: Reading, Language Arts, Mathematics, Social Studies, and Natural Sciences (9)

Materials and methods for use in teaching elementary school subjects. Laboratory experiences in university classroom, in area elementary schools, and in the use of other educational resources. Students provide their

own transportation to the field experiences assignments. *Prerequisite:* 21.300, or the equivalent, a grade point average of 1.5, and admission to a program of teacher education. Fall, Spring, Summer.

21.427 Inner-City Education (3)

Individual involvement in community action programs. Weekly seminar and three hours of participation in the field. University-wide endeavor for students to explore own area of concern. *Prerequisite:* interview with instructor, Roper Hall.

21.440 The Teacher and Educational Administration (3)

Administrative duties and relations of the teacher with reference to guidance, curriculum and financial responsibilities. Includes consideration of school work involving cooperation between or among teachers, supervisors and administrative officers. *Prerequisites:* 21.300 and 21.340 or 21.350, or the equivalents. Fall and Spring.

21.444 Student Teaching: Early Childhood and Elementary (9-15)

Actual observation, participation, and teaching. Grades K through 6. Conferences arranged with university supervisor: seminars at frequent intervals. Fee (in addition to tuition) \$10 per credit hour up to a maximum of \$80 for 9 or 15 credit hours. Fifteen hours of student teaching required for elementary education majors. Nine credit hours may be taken by those doing their student teaching for certification purposes only. Students provide their own transportation to the field experiences assignments. *Prerequisites:* Senior status, 21.300 and 21.350, or the equivalents, a grade point average of 1.5, and admission to a program of teacher education. Fall and Spring.

21.445 Student Teaching: Secondary Schools (9-15)

Actual observation, participation, and teaching. Grades 7 through 12. Conferences with university supervisor: seminars at frequent intervals. Fee (in addition to tuition) \$10 per credit hour up to a maximum of \$80 for 9 or 12 credit hours. Students provide their own transportation to the student teaching assignments. *Prerequisites:* Senior status. 21.300 and 21.340, or the equivalents, a grade point average of 1.5, and admission to a program of teacher education. Fall and Spring.

CORE COURSES IN EDUCATION**21.510 Philosophy of Education (3)**

Emphasizing the philosophical rationale underlying the processes, purposes, and methods of education, with special reference to the several schools of thought that have influenced education and determined its curriculum and organization. Required of all students taking a master's or doctoral degree program. *Prerequisite:* permission. Fall, Spring, Summer.

21.520 Advanced Psychology of Education (3)

Psychological principles and research having special relevance to education, including a consideration of motivation, attitudes, mental abilities, and the psychology of school subjects. Required of all students taking a master's or doctoral degree program. *Prerequisite:* 21.300 or 21.320. Fall, Spring, Summer.

21.610 Philosophy of Education: Advanced (3)

Doctrines and principles underlying education. A seminar-type course open to graduate students only. Required in all doctoral degree programs. *Prerequisite:* 21.510, or the equivalent. Fall and Spring.

21.790 Research Seminar in Education I (3)

Fundamentals, methodology, and materials for educational research: required of all students who plan to write a master's thesis, a doctoral dissertation, or a thesis option paper. A final document for the Master of Education degree. *Prerequisite:* Permission. Fall, Spring, Summer.

21.554 Vocational Analysis, Information and Placement (3)

Students will administer and interpret vocational tests, develop methods and techniques of preparing and presenting occupational information, review the literature dealing with research and theories in the process of vocational choice, and develop theories and practices in placement. *Prerequisites:* 21.551, 21.526, or 21.635. Spring.

21.655 Group Guidance

To provide counselors and other school personnel with knowledge of and experiences in methods of group guidance. *Prerequisites:* 21.556, 21.553, permission of department. Summer.

21.656 Seminar: Psychological Evaluation (3)

Descriptive and practical use of clinical tests. Considers problems and techniques of psychotherapy. Brief treatments of the theories of Freud, Adler, Jung, Sullivan, Horney, Fromm, Erikson, and Frankle. *Prerequisite:* 21.553. Fall.

21.659 In-Service Training Project: Practicum in Educational Counseling and Guidance (3-6) (250 clock hours of experience per 3 credits)

Practicum for advanced students in guidance and personnel services. Under close supervision students will perform intake interviews, counsel with students, prepare case reports or work directly in a specific phase of student personnel services. Research experiences included in this practicum. *Prerequisites:* 21.551, 21.552, 21.553, 21.554 and permission. Fall, spring, and summer.

21.662 Organization and Administration of Guidance Services (3)

See Course description under Education: Student Personnel Services.

21.622 Developmental Psychology (3)

See course description under Education: Historical Foundations of Education.

31.565 Institute: Counseling the Disadvantaged (3)

See course description under Education: Institutes.

STUDENT PERSONNEL SERVICES IN HIGHER EDUCATION**21.661 Student Personnel Services in Higher Education (3)**

Philosophical, psychological, and sociological bases for student personnel services. Emphasis on program,

staff, budget, housing, and activities in student personnel services in higher education. Fall and summer.

21.662 Organization and Administration of Guidance Services (3)

Principles, procedures, and practices in organization and administration of guidance services. Special attention to selecting staff, in-service training of staff, organizational patterns, ways of initiating a guidance program, and means of evaluating the program. Summer.

21.663 The Community College (3)

Study of the community college in the United States. Attention is focused on organizational patterns, diversity of function, student and faculty, and current problems of the two-year institution. *Prerequisite:* 21.561. Summer.

21.664 Principles of College Teaching (3)

Analytical study of teaching on the college level. Consideration of instructional methods as they relate to research and psychological bases. Use and effectiveness of various teaching media is examined. Spring.

21.666 Educational Materials and Techniques (3-6)

Workshop type course, covering selected phases of principles, methods, curriculum construction, administration, guidance, testing, and student personnel services.

21.765 Seminar in Education: Student Personnel Services in Higher Education (3)

A critique of issues and problems in contemporary programs of student personnel services. Spring.

21.769 Internship in Student Personnel Services in Higher Education (3-6)

For advanced students in student personnel services in higher education. Students are assigned to an area or areas of a program of student personnel services for exploratory administrative case and research experience. *Prerequisites:* 21.561, 21.662, 21.663, 21.765. Department permission. Fall, spring, and summer.

SUPERVISION AND CURRICULUM DEVELOPMENT**21.681 Curriculum Construction (3)**

Psychological, cultural, and educational bases of elementary and secondary school curriculum and higher education. Practice in construction of curriculum materials to meet modern educational problems. *Prerequisites:* 21.300 and 21.340 or the equivalents. Fall or summer.

21.682 School Supervision (3)

For prospective and in-service supervisors for elementary and secondary schools. Purposes and techniques of supervision are discussed. *Prerequisites:* qualification for a teacher's certificate and/or teaching experience. Spring and summer.

21.683 Supervision of Student Teachers (3)

To provide guidance for the supervising teacher and others in their work with student teachers. *Prerequisites:* qualifications for a teacher's certificate, and teaching experience. Summer.

SCIENCE CURRICULUM**21.581 Physical Sciences for Elementary School Teachers (4)**

Recent findings in physics and chemistry, with special reference to science knowledge expected on the part of the elementary school teachers. Spring, summer.

21.582 Biological and Geological Sciences for Elementary School Teachers (4)

Recent findings in biology and geology with special reference to science knowledge expected on the part of the elementary school teachers. Spring, Summer.

READING CURRICULUM**21.571 Foundations of Reading Instruction (3)**

Broad considerations underlying the teaching of reading with special emphasis on reading disability and the problems of the retarded reader. *Prerequisite:* 21.300 or equivalent. Fall.

21.572 Methods of Teaching Developmental Reading (3)

To meet the needs of teachers who are interested in the teaching of developmental reading or in planning such programs at the intermediate secondary level or in higher education. *Prerequisite:* 21.571 or equivalent. Spring.

21.673 The Diagnosis of Reading Disability (3)

To assist the teacher in diagnosing the causes of reading disability and prescribing proper treatment. Practicum work with children who exhibit reading disability is an essential part of this course. *Prerequisites:* 21.520, 21.571, and permission of the department. Summer.

INSTITUTES**31.631 Institute on Reading and Learning Disabilities (3)**

See descriptions under *Institutes*, page 201.

31.565 Institute: Counseling the Disadvantaged (3) Summer

See descriptions under *Institutes*, page 201.

WORKSHOPS, SEMINARS AND INTERNSHIPS**21.710 Seminar in Teaching (3)**

To operate as a cycle stressing, from semester to semester, the following areas: curriculum construction, public relations, school administration and supervision, educational research, and methods and materials of teaching. (May be repeated for credit.) *Prerequisite:* permission, Fall, spring, and summer.

21.790 Research Seminar in Education I (3)

Fundamentals, methodology, and materials for educational research required of all students who plan to write a master's thesis, a doctoral dissertation, or a thesis option paper. *Prerequisite:* Permission. Fall, Spring, and Summer.

21.791 Research Seminar in Education II (3)

A seminar-type course in which a comprehensive research paper is required. Designed especially for M.Ed. candidates. *Prerequisites:* 21.790. Fall, spring, and summer.

21.792 In-Service Training Project: Internship in Education (3-12)

Internships in cooperating local school systems by a limited number of properly qualified persons as an integral part of their degree programs in areas such as administration, or special education. *Prerequisites:* Advancement to candidacy for Ed.D. degree; permission of the Chairman for the M.Ed.

21.797 Master's Thesis Seminar (3-6)

At least three hours required of all students working on a master's thesis. *Prerequisite:* 21.790. Fall, spring, and summer.

21.799 Doctoral Dissertation Seminar (6-12)

Required of all students working on doctoral dissertations. *Prerequisites:* 21.790 and advancement to candidacy for a doctoral degree. Fall, spring, and summer.

**Educational Administration
—(See Education)****English****SPECIAL SECTIONS****1.100 Honors English I (3)**

Limited to first-year students whose registration is approved by the University Honors Board.

1.101 Honors English II (3)

Limited to first-year students whose registration is approved by the University Honors Board.

F23.010 English Workshop (0)

For non-native speakers of English. Classes and tutorials in the principal skills of communication in English. Admission on the basis of examination. Tuition, part-time students, regular three credit hour charge.

F23.100-F23.101 Composition and Reading I, II (3,3)

A section of Composition and Reading designed for foreign students. Similar in content to the regular sections. Foreign students whose competence in English makes them eligible for college-level work are assigned to this section so that attention can be given to their special language problems.

REGULAR SECTIONS**23.100 Composition and Reading I (3)**

Training and practice in writing and critical reading. Concepts of language and rhetoric as the basis for effective expression in English.

23.101 Composition and Reading II (3)

Continuation of 23.100. Includes techniques of library research, organization and writing of a documented research paper. *Prerequisite:* 23.100.

23.103 Advanced Composition (3)

Expository writing with some opportunities to write poetry and narrative. *Prerequisite:* 23.101 or equivalent.

21.115 Approaches to Literature (3)

Introduction to the study of literature. Technique for analyzing and evaluating a literary work; literary traditions and conventions; the major genres. Readings, discussions, papers. *Required course for beginning English majors. Prerequisite:* Departmental permission.

23.120 World Literature I (3)

Introduction to literary forms and masterpieces of Western civilization from the ancient Greeks to the 18th century. Primarily for students not majoring in English.

23.121 World Literature II (3)

Introduction to literary forms and masterpieces of Western civilization in the 19th and 20th centuries. Primarily for students not majoring in English.

23.310 English Literature I (3)

Survey of English prose and poetry from beginnings to the mid-18th century. *Prerequisite to advanced courses in English Literature.*

23.311 English Literature II (3)

Survey of English prose and poetry from mid-18th century to the 20th century. *Prerequisite to advanced courses in English Literature.*

23.320 American Literature I (3)

American literature from the colonial period to about 1860. *Prerequisite to advanced courses in American Literature.*

23.321 American Literature II (3)

American literature from 1860 to the 20th century. *Prerequisite to advanced courses in American Literature.*

23.330 The Short Story (3)

Development of the short story as an art form. Reading and analysis of stories by 19th and 20th century writers.

23.331 Aspects of Poetry (3)

Study of poetic forms and techniques, using a non-historical approach. Reading and analysis of English and American poems.

23.333 Literary Criticism (3)

Empirical exploration of the work of "literary critics." Use of works of literature in various forms—novel, play, poem, short story—as case material. Not historically oriented. *Prerequisite:* Two courses in literature.

23.392 Senior Undergraduate Seminar in English (3)

An integrating seminar for majors. Review of the aims, methods, and materials of literary study and research. Readings, discussions, field trips, papers. *A required course for majoring in English. Prerequisite:* Departmental permission.

23.503 History of the English Language (3)

Development of the language from Old English to Modern English, with special studies on phonology, morphology, semantics, and vocabulary. *Prerequisite:* Upperclass or graduate standing.

23.504 Modern American English (3)

Grammar as a system inherent in English, and an examination of various approaches to English grammar (traditional, structural, transformational, etc.); regional and social variations in present-day English. *Prerequisite:* Upperclass or graduate standing.

23.510 Creative Writing I (3)

Training in writing prose and poetry through individual literary projects suited to the student's needs and interests. *Prerequisite:* Permission of instructor.

23.511 Creative Writing II (3)

Style and structure in writing prose and poetry. Practice in writing essays, short stories, and poems. Readings, discussions, conferences. *Prerequisite:* Permission of instructor.

23.520 Chaucer I (3)

Introduction to the reading of Chaucer's poetry. Chaucer as a man and poet, and his 14th century background. Readings in *The Canterbury Tales*. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.521 Chaucer II (3)

Readings in *The Canterbury Tales*, *Troilus and Criseyde*, and some of the minor poems. *Prerequisite:* 23.520, or permission of instructor.

23.522 English Drama: 10th Century to 1642 (3)

Development of English drama through the study of the plays of the predecessors and contemporaries of Shakespeare. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.523 Renaissance Literature (3)

Literature of the Renaissance in Italy, France, England, exclusive of drama, with emphasis upon the literature of the Tudor period in England. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.524 Shakespeare I (3)

Earlier plays, with attention to the development of Shakespeare's artistry, his use of sources, the social and political backgrounds. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.525 Shakespeare II (3)

The later plays. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.526 Seventeenth Century Literature (3)

Commonwealth and Restoration Literature, with some attention to continental literature of the century, exclusive of drama. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.527 Milton (3)

Readings in the major and minor poems, with special attention to *Paradise Lost*. Some readings in his prose works. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.528 Studies in 18th Century Literature (3)

Literature of 18th century England, with special reference to outstanding authors and dominant literary forms in the neoclassical tradition. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.529 Restoration and 18th Century Drama (3)

English drama from Dryden to Sheridan. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.531 The English Novel I (3)

The English novel in the 18th century. Reading of selected novels by Defoe, Richardson, Fielding, Smollett, Sterne, and Walpole. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.532 The English Novel II (3)

The English novel during the 19th century. Selected novels by Scott, Austen, Dickens, Thackeray, Eliot, and Hardy. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.533 Romantic Literature I (3)

Study of English literature of the Romantic Movement, with emphasis on Blake, Wordsworth, and Coleridge. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.534 Romantic Literature II (3)

Study of the chief writings of Byron, Shelley, and Keats. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.535 Victorian Prose (3)

The Victorian Age in English literature, as reflected in the work of selected major prose writers. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.536 Victorian Poetry (3)

The major Victorian poets, Tennyson to Hopkins. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.537 Modern British Literature (3)

British literature from 1900 to the present, exclusive of drama. Emphasis on major writers. *Prerequisite:* 23.310 and 23.311 or permission of instructor.

23.538 British Drama: 19th and 20th centuries (3)

British drama from Sheridan to the present. *Prerequisite:* 23.310 and 23.311 or 67.551 or permission of instructor.

23.540 Emerson and His Era (3)

Study of the artistic achievement of the "American Renaissance" as embodied in the writings of Emerson, Thoreau, Hawthorne, and Melville. *Prerequisite:* 23.320 and 23.321 or permission of instructor.

23.541 Howells and His Era (3)

A study of post-bellum literary movements as reflected in the writings of Whitman, Howells, Twain, and Henry James. *Prerequisite:* 23.230 and 23.321 or permission of instructor.

23.542 The Romantic Tradition (3)

Comparative study of 19th Century American literature and English literature of the Romantic Movement. *Prerequisite:* 23.310 and 23.311, and 23.320 and 23.321 or permission of instructor.

23.543 The Realist Tradition (3)

Comparative study of late 19th Century American literature as related to the rise of Realism and Naturalism. *Prerequisite:* 23.310 and 23.311 and 23.320 and 23.321 or permission of instructor.

23.544 The American Novel I (3)

The American novel to 1900, contents and emphases changing from year to year, concerning the development within the form of various intellectual, cultural, mythic, and literary themes. *Prerequisite:* 23.320 and 23.321 or permission of instructor.

23.545 The American Novel II (3)

Study of the modern American novel, see 23.544. *Prerequisite:* 23.544 or permission of instructor.

23.546 Poetry in America (3)

Selected American poets, with attention to the central traditions of American poetry. *Prerequisite:* 23.320 and 23.321 or permission of instructor.

23.547 Modern American Literature (3)

Various literary genres of subjects, themes, artistic strategies, and common mythic concerns as they illuminate modern American consciousness. *Prerequisite:* 23.320 and 23.321 or permission of instructor.

23.549 Modern American Drama (3)

American drama from O'Neill to the present. *Prerequisite:* 23.320 and 23.321 or 67.556 or permission of instructor.

23.550 Classical Drama (3)

Study of Greek and Roman tragedy and comedy through the reading of selected works in translation. *Prerequisite:* 23.120 or permission of instructor.

23.552 Comparative Literature I (3)

Comparative study of the writings of European authors in the Romantic tradition: Rousseau, Goethe, Stendahl, and others. *Prerequisite:* Graduate standing or permission of instructor.

23.553 Comparative Literature II (3)

Comparative study of the writing of European authors of the late 19th and early 20th centuries: Nietzsche, Zola, Ibsen and others. *Prerequisite:* 23.552 or permission of instructor.

23.554 Contemporary European Literature (3)

Comparative study of recent European writers. Frequent use of bilingual texts. *Prerequisite:* Upperclass or graduate standing.

23.555 Major European Novels I (3)

Intensive scrutiny of a number of 19th Century European novels in translation. Novels considered as art-works and as fictive studies in interpersonal relationships. *Prerequisite:* Permission of instructor.

23.556 Major European Novels II (3)

Intensive scrutiny of a number of early 20th-century European novels in translation. Novels considered as art-works and as fictive studies in interpersonal relationships. *Prerequisite:* Permission of instructor.

23.557 Modern European Drama (3)

Representative plays of European playwrights exclusive of the British Isles from the late 19th century to the present. *Prerequisite:* 67.551 or permission of instructor.

23.570 Interrelation of the Arts (3)

Exploration of the theoretical and practical implications of the doctrine that the fine arts comprise a family of blood-related members. *Prerequisite:* Permission of instructor.

23.572 Problems in Literary Criticism (3)

Intensive study of one or two specific problems in literary criticism, problems to vary from year to year. *Prerequisite:* 23.333 or permission of instructor.

23.575 Special Topics in Literature: The Dynamics of Power (3)

Literary perspectives on power. The elements of power, Power relations among individuals and between individuals and social systems. Selected poems, short stories, novels, and plays. Class discussion, out-of-class experiments, papers. Fall semester. *Prerequisite:* Upperclass or graduate standing.

23.575 Special Topics in Literature: American Negro Literature (3)

American Negro literature from Jupiter Hammon to Wright, Ellison, and LeRoi Jones. Negro writers as creative artists: their contributions to American literature critically evaluated.

23.575 Special Topics in Literature: Introduction to American Folklore (3)

Advanced survey of folk literature: the ballad, folk tales, folk craft and art, folk industry, and related materials. European and foreign sources. Folklore in literature. (Special resources of the Library of Congress and the Smithsonian available under direction of the instructor for students pursuing particular research. Field trips. *Prerequisite:* Upperclass or graduate standing.

23.575 Special Topics in Literature: Metacriticism: Study in Interdisciplinary Forms (3)

Ways of conceptualizing dynamic processes. Some topics of discussion: metaphor; "drama," "play," and "game" as interdisciplinary metaphors; language and literature as functional sets; perception and personality; tragedy, comedy, and systems theory; art as biological adaptation; the four "R's"—rhythm, revolution, relevance, and recognition. Spring semester. *Prerequisite:* Upperclass or graduate standing.

23.720 Graduate Seminar in English Literature (3)

Intensive study of selected problems in English literature. (Offered on alternate semesters with 23.730.)

23.722 Studies in the Age of Shakespeare (3)

Survey of the social, philosophical, religious, and cultural milieu of Shakespeare. Problems and materials relevant to a scholarly study of Shakespeare.

23.725 Studies in Literary Modes (3)

Topic in Fall Semester, 1969-70: The Baroque. Intensive study of selected problems in the Baroque with special emphasis upon the 17th century in England and France. *Prerequisite:* Graduate standing.

23.730 Graduate Seminar in American Literature (3)

Intensive study of selected problems in American literature. (Offered on alternate semesters with 23.720.)

23.797 Master's Thesis Seminar (3-6)

For M.A. candidates only. Methods and materials of research (3); the preparation of a thesis under the direction of a departmental committee (3).

See also: Speech Arts. The following courses may be taken for credit toward an English major.

67.550 History of Theatre I (3)

67.551 History of Theatre II (3)

67.556 History of the American Theatre (3)

67.560 Dramatic Theory and Criticism (3)

Far East—(See Area Studies)**Finance—(See Business Administration)****Financial Investment—(See Business Administration)****Food Marketing—(See Business Administration)****French—(See Languages and Linguistics)****German—(See Languages and Linguistics)****Government and Public Administration****POLITICAL SCIENCE****53.001 Political Science Student Orientation (0)**

Required of all entering freshmen and transfer students who have less than 30 hours of credit. No charge.

Foundation Courses

These courses (15 hours) are required of all undergraduate Political Science majors.

53.100 Modern Government (3)

Comprehensive introduction to study of Political Science, with emphasis on the theory, processes, and institutions of politics and government in the modern world. Nature and functions of political systems in society. Principal ideological conflicts today. Theory and practice in countries in varying stages of economic and political development.

53.150 The U.S. Political System I (3)

Development of the governmental system of the United States. Contemporary federalism, including the changing relationships of national, state, and local governments. Major institutions of policy-making at the national level. Concepts of representation in the American political system.

53.250 The U.S. Political System II (3)

Processes of politics and public policy making, emphasizing dynamics of public policy formation in the U.S. Federal system. Consideration is given to the major institutions of state and local government. *Prerequisites:* 53.100 and 53.150.

33.200 Introduction to World Politics I (3)

SIS Course required of all students in the undergraduate political science curriculum.

53.300 Research and Political Science I (3)

Introduction to social science research: sources, approaches, and methods, as they relate to Political Science. *Prerequisite:* at least nine hours of SGPA or SIS courses and Junior standing.

Fields of Specialization

THE THEORY OF POLITICS AND GOVERNMENT

Two courses cover: nature and basic concepts of political theory; social origins and functions of political ideas; study of selected political theories beginning with Plato; political theories of the modern state; introduction to contemporary political doctrines.

53.310 Political Theory I (3)

Prerequisite: 53.100.

53.410 Political Theory II (3)

Prerequisite: 53.310.

COMPARATIVE GOVERNMENT AND POLITICS

53.330 Comparative Government I (3)

Comparative study of constitutional systems and governmental, legal, and political institutions and processes of Great Britain, France, West Germany, and the USSR, in the context of their historical development, social and economic structure, and cultural setting. *Prerequisites:* 53.100 and 53.150.

53.430 Comparative Government II (3)

Governmental and political institutions and processes of developing countries, to include India, Communist China, and other selected areas. *Prerequisite:* 53.330.

53.448 Government and Politics of Latin America (3)

Course is strictly elective, and does not apply toward Political Science major program requirements. *Prerequisite:* A course in comparative government or some aspect of Latin America.

For students who want a narrower focus on the political institutions of regional groups of countries, a series of .400 level SIS courses is available to be taken under the related courses category. These courses are not substitutes for 53.430 in this field of specialization in Foreign and Comparative Government. Also, see the SGPA graduate curriculum for a group of .500 level country and regional courses in foreign governments.

INTERNATIONAL RELATIONS

One or two of the following pairs of SIS courses may be chosen as fields of specialization. If the student elects two of these options, no further international relations courses may be applied to the "Related Course Requirement". For Political Science majors 53.100 should precede any of these courses.

33.400 Introduction to International Law (3)**33.440 Introduction to International Organization (3)****33.302 Foreign Policies of the Great Powers (3)****33.430 American Foreign Policy (3)**

Introduction to an Area (33.414, 33.410, etc.)
International Relations of that Area (33.429, 33.425, etc.)

PUBLIC LAW AND THE LEGAL SYSTEM

53.350 Law and the Political System (3)

Basic notions of jurisprudence and the background of the Anglo-American legal system. Description of the American legal system, types of problems dealt with by the federal, state, and urban judiciaries, the roles of the police, courts, prosecutors, judges, pressure groups, and administrators. Development of the U.S. Supreme Court as a political institution. *Prerequisite:* None. 53.150 and 53.250 recommended for Political Science majors.

53.450 Civil Rights and Liberties (3)

An analytical treatment of Supreme Court policy-making in the area of civil liberties, with particular emphasis on the First and Fourteenth Amendments, including constitutional doctrines, current trends and prospective problems. *Prerequisite:* None. 53.150 and 53.250 recommended for Political Science majors.

THE POLITICAL AND ELECTORAL SYSTEM

53.351 Political Dynamics (3)

Nature and roles of public opinion, interest groups, and political parties in pluralistic societies. Emphasis on American politics. Concepts of political behavior and techniques of political action. Problems in political participation, communication, leadership, decision-making. *Prerequisite:* 53.150.

53.451 Political Parties and Interest Groups (3)

Party system and group politics in the U.S. The functions, organization, techniques of political action. Elections and election behavior. Problems in practical politics. *Prerequisite:* 53.351.

NATIONAL POLICY PROCESSES

53.150 and 53.250, together, will treat the policy-making system of the U.S. governmental structure. For the student who elects this specialization, these two courses will emphasize Congress and the Presidency as two major organs of the policy-making system at the national governmental level.

53.352 The Legislative Process (3)

The United States Congress: organization, rules, and procedures, and its relationships with other parts of the political and governmental system. *Prerequisite:* 53.100; 53.150; 53.250.

53.452 The National Executive (3)

The Presidency in law and practice; its relation to Congress, the public, the party structure, and the administrative establishment, and its responsibilities in foreign and military affairs. *Prerequisites:* 53.100; 53.150; 53.250.

THE ADMINISTRATIVE SYSTEM**53.353 The Administrative Process (3)**

Administration in the public sector, its principles and processes. Analysis of the development of public administration as a discipline and its relationship to other disciplines. Survey of the techniques of modern public administration. *Prerequisites:* 53.100; 53.150; 53.250.

53.453 The Bureaucracy (3)

Nature and functions of bureaucracies in modern government, with emphasis on the U.S. Federal executive. Relationship of bureaucracy to the political process. Administrative organization and management of the public sector. *Prerequisite:* 53.353.

THE METROPOLIS**53.354 Government and the Metropolis (3)**

Growth of cities and metropolitan areas. Emergence of the urban environment as a focus for public policy. Implications of metropolitan development and functions for the organization of government and politics in the United States. Impact of the metropolis on governmental programs. *Prerequisites:* 53.150, 53.250.

53.454 Metropolitan Political Systems (3)

Comparative study of approximately five U.S. and foreign metropolitan areas, their political organizations and responses to problems such as urban design, transportation, public safety, finance, housing, etc. *Prerequisite:* 53.354.

GOVERNMENT AND THE SOCIAL ORDER

(Available only as electives for CAS students.)

53.355 Government and the Social Order (3)

The forces which have shaped government's role in the social and economic order. Emphasis on institutional change, ideological development, and constitutional doctrines, which together determine the scope, content, and character of government's role. Relationships and implications of this role for the individual and the ideal of liberty. *Prerequisites:* 53.100; 53.150; 53.250.

53.455 Problems in Social Policy (3)

Governmental instruments and processes employed in the implementation of policy: directive, persuasive, promotional, exemplary, advisory. Examination and analysis of substantive policy and program areas: labor, anti-trust, transportation, health and medical care, poverty, fiscal management, and "the new economics." *Prerequisite:* 53.355.

A GENERAL COURSE**53.356 Black Politics (3)**

Analysis of black inputs into the U.S. political system and its responses. The movement for black identity, community and power, considered as a major social, economic and political problem. Consequences for the system. *Prerequisite:* None.

A ONE-COURSE CHOICE FOR SGPA SENIORS

(from the following)

53.400 Research and Political Science II (3)

Advanced course in scope and method of research in field of Political Science, with special emphasis on the techniques of social science research and on their application to specific areas. Intended for those who plan to continue in graduate study. The combination of 53.300 and 53.400 will be equated with the graduate course 53.610 Theory and Method of Political Research I. *Prerequisites:* 53.300 and Senior standing.

53.401 Senior Research Seminars (3)

With variable scheduling from semester to semester, possibly with differing concurrent sections: (1) an undergraduate research seminar, available for a few selected students for supervised experience in individual or team research in matters of government and politics; or (2) a seminar, for a few selected students, to provide 3 more hours of specialization in the subject of one of the preceding six hour tracks (e.g. political theory). *Prerequisites:* Senior standing as a Political Science major and permission.

53.460 Perspectives in Government and Politics (3)

Synthesis for the finishing senior on the relation of the institution of government to its intellectual, social, and scientific environments. Course will vary from semester to semester, as determined by the particular student group, the instructor, and the contemporary public problems of the moment. It will make use of important visiting lecturers. It may be taken in either semester of the fourth undergraduate year, but not more than once for credit. *Prerequisites:* Senior standing as a Political Science major and permission.

HONORS AND TUTORIAL COURSES**56.498 Honors Tutorial Reading in Political Science (3)****56.499 Honors Seminar and Public Affairs Laboratory in Political Science (3)****56.390 Undergraduate Reading Course (3)**

As arranged with a supervising faculty member.

56.490 Individual Research Project (3)

As arranged with supervising faculty member.

56.495 Tutorial Seminar for Undergraduate Foreign Students (No Credit)

Vehicle for registration for special assistance in intercultural and academic problems to foreign undergraduate students who have need of such assistance. Cost of registration will be determined on a special fee basis, ranging from \$200 to \$500 per semester depending on character and extent of assistance required.

THE WASHINGTON SEMESTER

56.410 Washington Semester Seminar I (3)

56.411 Washington Semester Seminar II (3)

56.412 Washington Semester Research Project (3)

All nine hours required. For advanced students enrolled from cooperating institutions, through formal inter-institutional agreements of this program. Study of U.S. government in action, through seminars with senior representatives of U.S. Government agencies, reports, conferences, lectures, and guided seminar evaluations of experience. The research project is the requirement of an individual analytical report, prepared under the guidance and counseling of the academic directors of the program. *Prerequisite:* Selection. All offered every semester.

Washington Semester courses, as listed above, primarily for students who come from other institutions under the arrangements of the Washington Semester Program. Selected Political Science majors from the American University may participate each semester. For those selected, the nine hours of this program may be substituted for any one of the six-hour sequences required under paragraph 2 above, and may be used for the achievement of Honors in Political Science in the same way as the honors courses which are also described above.

THE URBAN SEMESTER

56.413 Urban Semester Seminar (3)

56.414 Urban Semester Seminar (3)

56.415 Urban Semester Research Project (3)

Nine hours required. For qualified undergraduate students from The American University. Open to a small number of Consortium students, permission required. For all students, these nine hours will substitute for the regular urban affairs sequence of courses. Each student will attend a series of seminars and prepare an analytical report.

The purpose of the Urban Affairs Semester is to give students a broad introduction to national and local urban affairs policy-making. Seminars will be held with urban-oriented committees, agencies, departments, and interest groups. Housing subcommittees of Congress, the Department of Housing and Urban Development, the Department of Transportation, for example, will be included in seminar programs. Seminars will also focus upon the relationships between national urban policies and local decision-making. Seminars will be held with urban renewal and housing agencies, local political leaders and metropolitan planning organizations. Program is designed to provide students with a broad introduction to urban problems and programs and to examine the intergovernmental characteristics of urban affairs policy-making. Individual research on urban affairs topics will be developed under the guidance of the Urban Affairs Semester directors. *Prerequisite:* \$3.250, or equivalent, and permission.

Graduate Courses

This course listing includes a few .500 level courses available to advanced undergraduate students who meet the prerequisites and may also be taken for credit by graduate students. Most are at the .600 or .700 level, and open only to graduate students in non-degree or degree program status.

The presentation of this curriculum is organized as follows:

- Politics and Government
- Public Administration and Management
- The Technology of Management
- Special Courses and Internships

The first three of these are the curricular areas of the graduate degree programs. Within each of these, the courses are grouped by comprehensive examination fields.

Politics and Government

POLITICAL PHILOSOPHY (53.60M AND 53.60D)

53.600 Political Thought of the Modern State (3)

Intensive analysis of the major political philosophers from the Renaissance to the Twentieth Century. For graduate students who have not had a course in modern political theory. This, or equivalent, required in all M.A. and Ph.D. programs in Government. *Prerequisite:* graduate standing.

53.601 Foundations of Western Political Thought (3)

Political thinkers, theorists, and movements from Plato through the Middle Ages. Earlier theoretical foundations of Western Civilization and its political institutions and concepts. Appropriate reference to the contributions of Oriental philosophies. *Prerequisite:* graduate standing.

53.602 Contemporary Political Thought (3)

Background and major issues of Twentieth Century political thought. Contemporary theories and ideological movements. Theoretical implications and contributions of functionalism and behavioralism. *Prerequisite:* 53.600, or equivalent, and graduate standing.

53.603 Marxist and Non-Marxist Socialism (3)

Origins and characteristics of socialist philosophies, ideologies, and doctrines, and their relations to derivative political movements. Their significance for contemporary understanding of the ideological orientations of the developing and the communist nations. *Prerequisite:* 53.600, or equivalent, and graduate standing.

53.604 American Political Theory (3)

Major concepts and ideas of American political thought, especially those influencing development of the American system of government. *Prerequisite:* a course in American history, and graduate standing.

53.605 Non-Western Political Theory (3)
Political theories and politically-related philosophical concepts of non-Western cultures; influence on their own cultures and others. *Prerequisite:* 53.600, or equivalent, and graduate standing.

SEMINARS IN POLITICAL PHILOSOPHY

53.700 M.A. Research Seminar (3)
Prerequisite: permission.

53.705 General Seminars (3)
Prerequisite: permission.

53.706 Doctoral Dissertation Seminar (3-12)
Prerequisite: permission.

These seminars in Political Theory will frequently be scheduled, from semester to semester, with differing special topics, such as "Emphasis on Contemporary Writers," "Contemporary Ideological Issues," etc.

RELATED COURSES AND SEMINARS

53.770-5 Seminars in Public Law
(When specialized in Jurisprudence.)

THEORY AND METHOD OF POLITICAL RESEARCH

This group of courses is not a comprehensive field for comprehensive examination purposes.

53.610 Theory and Method of Political Research I (3)
Review of the philosophical concepts, approaches, and methodologies of social science research, as applicable in political science. Evaluation of the respective approaches and methodologies. Problems of interdisciplinary research. This, or equivalent, required in M.A. and Ph.D. programs in this School. *Prerequisite:* Graduate standing.

53.611 Theory and Method of Political Research II (3)
Building on the philosophical perspectives covered at length in 53.610, course focuses on salient techniques of political research. Emphasis will vary from semester to semester, with content selected from: Problems of design: surveys, archives, data banks; sampling, questionnaire construction, interviewing, coding. Problems of analysis: bivariate and multivariate measures of association; causality and causal models; theory of scales, factor analysis; statistical inference. Problems of data processing: computer hardware and software; information storage and retrieval. Introduction to simulation and mathematical modeling. Alternative strategies of research applicable to selected political problems. *Prerequisite:* 53.610. A basic course in statistics is strongly recommended. (Required of all Ph.D. students.)

53.715 General Seminar in Political Science Research (3)
Prerequisite: Permission.

RELATED COURSES FROM THE SOCIOLOGY CURRICULUM

- 65.512 Quantitative Methods in Sociology (3)
- 65.612 Social Research Methods I (3)
- 65.613 Social Research Methods II (3)
- 65.712 Seminar in Social Research (3)

SCIENCE, TECHNOLOGY AND GOVERNMENT (53.62M AND 53.62D)

53.620 Science and the State (3)
Interactions of science, scientists, and government, and their political, administrative, and social implications. Problems of public policy in scientific subjects. Roles and obligations of scientists toward and in public policy and administration. Politico-economic implications of governmental scientific research. Implications of science for the traditional state system and international order. *Prerequisite:* Graduate standing.

55.513 Technology and Administration (3)
(See 55.061)

53.621 Contemporary Problems of Science Policy (3)
Current issues and special topics, variably of general scope or specialized focus. *Prerequisite:* 53.620.

53.622 Cybernetics and Society (3)
Phenomenon of cybernation, will consider the threats and promises in the widest array of dimensions: Automation and the labor force; formidable implications of computer-amplification of the potentials of scientific research; Soviet concepts and achievements in cybernation of bio-social research, social planning, and societal control; international relations implications of such Soviet concepts; issues for the U.S. citizen, the U.S. social scientist, and the U.S. government. *Prerequisite:* Graduate standing.

53.623 Science, Technology, and International Politics (3)
Effects of science and technology on the territorial state system, including changes in instruments of international conduct such as diplomacy, international organization, and war. Study of scientific components of foreign policy formation, including scientific bases of foreign policy issues, patterns of international scientific cooperation, and role of the scientist in the foreign policy process. *Prerequisite:* 53.620.

SEMINARS IN SCIENCE, TECHNOLOGY, AND GOVERNMENT

53.720 M.A. Research Seminar (3)
Prerequisite: permission.

53.725 General Seminars (3)
Prerequisite: permission.

53.726 Doctoral Dissertation Seminar (3-12)
Prerequisite: permission.

RELATED COURSES AND SEMINARS**65.549 The Sociology of Science (Sociology) (3)****81.506-81.507 The History of Scientific Thought I & II (3-3)***(From the Division of Natural Sciences)***55.670 The Politics and Economics of Research and Development (3)***(See 55.067)***COMPARATIVE GOVERNMENT AND POLITICS (53.63M AND 53.63D)****53.630 Graduate Introduction to Comparative Government and Politics (3)**

Comparison of constitutional foundations, governmental institutions, and political processes in their historical, socioeconomic and cultural context. Emphasis on major democracies of Western Europe and the USSR. *Prerequisites:* Graduate standing, and 53.650 (may be taken concurrently) or equivalent.

CROSS-NATIONAL COURSES**53.631 Comparative Political Systems (3)**

Origin and change of democratic totalitarian political systems, considered within the context of contemporary concepts and theories of political change, development, and modernization. Interplay of culture, socio-economic structure, and authority patterns. *Prerequisite:* Graduate standing and 53.630 or equivalent.

53.632 Government and Politics of Developing Nations (3)

Sociopolitical characteristics of selected developing nations. Their similarities and differences in governmental structure and the dynamics of politics. *Prerequisites:* Graduate standing, and 53.630 or equivalent.

53.633 Comparative Political Processes (3)

Cross-national study of political participation. Emphasis on stratification, leadership, socialization, and political culture. Problems of field research. Course also serves the comprehensive field of Political Dynamics (53.66). *Prerequisites:* 53.630 and 53.631, for field 53.63; 53.660 and 53.661, for field 53.66 (may be taken concurrently with 53.661).

75.620 Seminar on World Communism (3) Joint: SIS (SGPA)

Survey of the development of socialist and communist movements, their background, organization, doctrine, and major strategic concepts; general communist strategy toward the advanced industrial and underdeveloped areas. *Prerequisites:* Modern history, Marxist Theory, and permission of instructor.

75.631 The Dynamics of Revolution (3) Joint: SGPA (SIS)

Backgrounds and causes of revolutions, and the assessment and prediction of revolutionary threat or potential. Types and stages of revolution, and techniques of revolutionary action. Planning, organization, and

conduct of revolution as a conflict instrument. Prevention and suppression of revolution. *Prerequisite:* Graduate standing.

33.658 Seminar on Regional Organizations: Western Europe (3) (SIS)**REGIONAL AND COUNTRY COURSES**

Related to comprehensive examination fields 53.70-77 for non-SGPA students only.

53.540 Government and Politics of Western Europe (3)**53.541 Government and Politics of USSR-Eastern Europe (3)****53.542 Government and Politics of The Middle East (3)****53.543 Government and Politics of Africa (3)****53.544 Government and Politics of Communist China (3)****53.545 Government and Politics of Far East (excl. Communist China) (3)****53.546 Government and Politics of South Asia (3)****53.547 Government and Politics of Southeast Asia (3)****53.648 Government and Politics of Latin America (3)****SEMINARS****53.730 M.A. Research Seminar: Comparative Government (3)***Prerequisite:* permission.**53.735 General Seminars: Comparative Government (3)***Prerequisite:* permission.**53.736 Doctoral Dissertation Seminar: Comparative Government (3-12)***Prerequisite:* permission.**RELATED COURSES****19.561 Development Planning (3)****THE AMERICAN GOVERNMENTAL SYSTEM (53.65)****53.650 Graduate Survey of American Government (3)**

This course approximates the six hours of the undergraduate courses 53.150 and 53.250. Required of all SGPA graduate degree students who have not had an equivalent. *Prerequisite:* Graduate standing.

53.651 The Legislative Process (3)

Function of the legislature in the American governmental system, with emphasis on Congress and comparative consideration of the state legislature. Organization and procedures, relationships and interactions with the electorate, and the executive, judicial, administrative, and political establishments. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.652 The National Executive (3)

Role and organization of the executive branch in the American governmental system, with emphasis on the presidency and comparative consideration of the office of governor. Functioning of the office as chief of state, in its relationships with legislative, political, administrative, and military establishments, and in formation and control of foreign and defense policy. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.653 American Federalism (3)

Constitutional and functional relations of American federalism. Interrelationships of national, state, and local governments. The concept of federalism in the governmental-economic and other dimensions of American life. Comparative consideration of the role and performance of the states in the American federal system. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.654 The Formation of Public Policy (3)

Integrative study of policy-making process. The relationship of persons, groups, and governmental and non-governmental institutions in initiation, formulation, and implementation of public policy in the United States. Organization and manipulation of opinion. Theories of policy formation and decision-making. Course also serves the comprehensive field in Political Dynamics (53.66). *Prerequisites:* 53.651 and 53.652 or 53.661 and 53.662.

53.671 The Judicial System and Process (3)

(See field 53.67)

75.672 Foreign Policy Formation in the U.S. (3) Joint: SIS (SGPA)

Conduct and control of foreign policy—with special emphasis on administrative and policy problems of the United States and selected foreign countries; impact of foreign policy in the domestic and international field; State Department organization and its relation to other departments, Congress, the President, and public opinion. Members may select key problems showing making and control in relation to strategic, military, fiscal, and economic practice. *Prerequisite:* a course in American Government.

75.652 Seminar on National Security Policy (3-6) Joint: SIS (SGPA)

Broad examination of principal elements of national security policy. The world setting. Roles of Executive Branch and Congress in policy making, implementation, and control. Civilian-military equation, military doctrine, strategic intelligence. Principal elements of military strategy. Operative economic factors and forces.

SEMINARS IN AMERICAN GOVERNMENTAL SYSTEM**53.750 M.A. Research Seminar (3)**

Prerequisite: permission.

53.755 General Seminars (3)

Prerequisite: permission.

53.756 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

POLITICAL DYNAMICS (53.66M AND 53.66D)

Because this is the area in which the behavioral sciences approach has especially been applied, courses related to this subject are oriented from the theoretical and functional point of view, with heavy emphasis on application of the theory and functional perspective to the American political context.

53.660 Political Dynamics (3)

Introduction to nature and roles of public opinion, interest groups, and political parties in the United States. Concepts of political behavior. Functions, organizations and techniques of political action. Problems in political participation, communication, leadership, and decision-making. *Prerequisite:* 53.650 or equivalent, and graduate standing.

53.661 Political Behavior (3)

Theories of American political process. Effects of the social and economic environment on public opinion formation, political leadership, interest group conflict, and party structure. Models of power and decision-making in major institutions of American political life. Problems of concept formation, quantitative evidence, and field research in the examination of American political behavior. *Prerequisites:* 53.650 and 53.610 or 53.660.

53.633 Comparative Political Processes (3)

See field 53.63: Comparative Government.

53.663 Political Functions (3)

Varying special sub-subjects: Political participation and socialization; political communication; representation and accountability; political leadership; decision making and policy formation. *Prerequisites:* 53.660, 53.610 and 53.661 strongly recommended.

53.654 The Formation of Public Policy (3)

See field 53.65: American Governmental System.

SEMINARS IN POLITICAL DYNAMICS**53.760 M.A. Research Seminar (3)**

Prerequisite: permission.

53.765 General Seminars (3)

Prerequisite: permission.

53.766 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

PUBLIC LAW AND THE LEGAL SYSTEM (53.67)

53.670 Constitutional Law and the Supreme Court (3)

Judicial power and the judicial system. The Supreme Court as an institution. Constitutional doctrine and its implications for the political and legal system, with emphasis on federalism, powers and limitations on government, and the advancement of group and individual interests and rights. Contemporary role of the Supreme Court, its characteristics and problems. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.671 The Judicial System and Process (3)

Nature of judicial process and judicial decision-making. Organization, jurisdiction, administration, and comparison of federal and state court systems. Civil and criminal procedures. Functions and relationships of police, prosecutor, courts, and post-trial procedures in administration of criminal justice. *Prerequisite:* 53.650, or equivalent, and graduate standing.

53.672 Administrative Law and Process (3)

Legal foundations of administrative process. Administrative discretion. Types of administrative action and enforcement. Rule making. Administrative adjudication. Organizational, procedural, and judicial controls on administrative discretion. Scope and nature of judicial review of administrative action. Consideration of both national and state practice. *Prerequisites:* 53.650, or equivalent, and graduate standing.

SEMINARS IN PUBLIC LAW AND THE LEGAL SYSTEM

53.770 M.A. Research Seminar (3)

Prerequisite: permission.

53.775 General Seminars (3)

Prerequisite: permission.

53.776 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

As announced in semester schedules, these seminars may be offered variably as continuations in the general scope of this field, or as specializations in some aspect such as Legislative Drafting and Statutory Construction, Jurisprudence, the Law of Local Government, or some Contemporary Constitutional Problem.

URBAN AFFAIRS (53.68M AND 53.68D)

53.680 The Urban Polity (3)

Theory of local government. Comparative urban political systems. Relation of total political system to the physical, social, economic, and administrative organization of cities, metropolitan areas, regions, and the megalopolis. Will require thorough familiarization with the literature of urban politics, urban administration, and urban development. *Prerequisites:* 53.650, or equivalent, and graduate standing. Not open to students who have had 53.454 or equivalent.

53.681 Metropolitan Analysis (3)

Interdisciplinary course in application of approaches and methodologies of social science in the planning and analysis of urban affairs. Advanced reading in all disciplines. Creation of an interdisciplinary research design. Course is a search for theory of the metropolis. *Prerequisites:* 53.610 and 53.680.

53.682 Urban Politics (3)

Selected special emphases in various aspects of the politics of urban and metropolitan pluralism: Community and inter-community power systems; politics of core and suburb; politics of urban functions; political decision making, organization, participation, communication, leadership in the urban environment. Individual and team research. *Prerequisites:* 53.680, or equivalent, and graduate standing.

53.683 Urban Administration (3)

Selected special emphases in the general and specialized functions of administrators in local, regional, state, and national public agencies dealing with urban affairs. Political, intergovernmental, fiscal, and developmental aspects of urban administration. Field research and case studies. *Prerequisites:* 53.680, or 54.611, or equivalent, and graduate standing.

53.684 Urban Planning (3)

Selective special emphases in the politics and technical problems of urban planning: Comprehensive land planning, social and economic planning, transportation, renewal, rehabilitation and housing, open spaces, recreation, civic design, capital budgeting, zoning and other means of regulation and execution of plans. Special emphasis on political and intergovernmental context of planning and development functions and decisions. Field research. Case studies. *Prerequisites:* 53.680, or equivalent, and graduate standing.

56.531 Urban Affairs Laboratory (6)

See Special Courses and Internships.

56.630 Graduate Internships in National, State, and Local Government, or in a Research Organization (6)

See Special Courses and Internships.

SEMINARS IN URBAN AFFAIRS

53.780 M.A. Research Seminars (3)

Prerequisite: permission.

53.785 General Seminars (3)

Prerequisite: permission.

53.786 Doctoral Dissertation Seminar (3-12)

Prerequisite: Permission.

RELATED COURSES AND SEMINARS

3.534 Cultural Analysis (3)

11.585 Land Planning and Use (3)

11.778 Seminar in Land Planning and Use (3)

- 65.510 Concepts of Sociology (3)**
- 65.511 Theory of Social Research (3)**
- 65.542 Sociology of Political Action (3)**
- 65.547 Social Stratification (3)**
- 65.567 Urban Redevelopment (3)**
- 65.561 Public Welfare (3)**
- 65.563 Causes of Crime (3)**
- 53.692 Government and the American Future (3)**

The definition of the long-range goals of the future American society. The attributes of the policy and action required to fulfill them. The governmental process of societal planning. The computation of social, economic, and political costs. The engineering of the achievement of social and political change. *Prerequisites:* Graduate standing, and 53.650 or equivalent.

53.620 Science and the State (3)

See description under comprehensive field 53.62.

53.693 Contemporary Problems of Social Policy (3)

Each offering of this course will focus on a special problem area of current importance—race relations, poverty, air pollution, education, etc. For the selected topic, the course will attempt to define the issues, to analyze the social, legal, political, and administrative factors which affect it, and to design and compare the possibilities and patterns of governmental resolution. *Prerequisites:* Graduate standing, and 53.650 or equivalent.

SEMINARS IN GOVERNMENT AND THE SOCIAL ORDER

53.790 M.A. Research Seminar (3)

Prerequisite: permission.

53.795 General Seminars (3)

Prerequisite: permission.

53.796 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS

65.542 Sociology of Political Action (3)

(Sociology)

19.558 Comparative Economic Systems (3)

(Economics)

19.561 Development Planning (3)

(Economics)

19.761 Theory of Economic Development (3)

(Economics)

10.500 Business-Government Relations (3)

(SBA)

10.705 Seminar in Business-Government Relations (3)

(SBA)

GOVERNMENT AND THE SOCIAL ORDER (53.69M AND 53.69D)

Content of this field is the relationship of the governmental system to the major social and economic problems of contemporary society, with primary, but not exclusive, emphasis on the United States. Courses in the field will examine causes which lead governments to intervene in social and economic organization, techniques and instruments employed, factors influencing the choice of instruments and policies, trends of policy which may be discerned or predicted, and consequences of present and future policies for the individual and for society.

Courses in this field will intersect with the curricula of sociology, economics, and business administration, but they are not duplications. They do not emphasize the theory and substance of those other areas of knowledge in which policy choices must be made. Rather, they are concerned with the political policy choices required in the use of knowledge from these fields.

These courses will be open both to the student who is preparing for comprehensive examination in the field and to the student who has a special interest in a single course. Either student must have at least the equivalent of the stated prerequisites: 53.630: Graduate Introduction to Comparative Government and Politics for those taking 53.691, and 53.650: Graduate Survey of American Government for all other courses in the field. Some previous or concurrent work in sociology or economics will be beneficial, but is not required.

53.690 Government and the American Society (3)

Political, economic, and cultural setting of American society as source of the major problems of governmental policy and action. Ideological and constitutional foundations and concepts of the governmental role in social and economic policy. Contemporary policy and practice in planning, regulation, promotion, and redistribution. Problems and consequences with respect to distribution and relationships of social, economic, and political power, status, and benefit. *Prerequisites:* Graduate standing, and 53.650 or equivalent.

53.691 Comparative Public Policy (3)

Comparative study of the patterns of government economic and social policy in various countries and of factors affecting policy choices. Effects of political and social structure, historical experience, attitude, ideas, and ideologies upon the policies with which governments attempt to deal with economic and social problems. Close examination of examples chosen from selected industrialized and less-developed countries. *Prerequisites:* Graduate standing, and 53.630 or equivalent.

SPECIAL COURSES AND INTERNSHIPS

Inter-College Programs

56.610 The Washington Graduate Year: Cooperative Graduate Study Supervision

(Credit as determined by arrangements with formally cooperating institutions.)

This is the offer of this School to other U.S. colleges and universities who wish to enter mutually satisfactory arrangements for the purpose, to stand *in loco academic parentis* in the provision of academic counseling and guidance in course work for their graduate students who may need to carry on graduate study or dissertational research in Washington, D.C. This possibility must be limited to those students whose interests lie within one of the major curricular areas of this School, as described in the preceding pages of this catalog. We particularly invite the development of this possibility in the field of THE TECHNOLOGY OF MANAGEMENT in its public administration applications.

Comparative Government Workshops Abroad

56.520 Summer Traveling Seminar (3-6)

Approximately 45-60 days.

56.521 In-Year Traveling Seminar (3-6)

One Semester.

Field study of the governments of Europe or other areas of the world as announced, under the direction of a senior member of the faculty of this School. (Send for brochure.)

Field Study Programs in American Government

56.530 Washington Semester Summer Seminar (6)

A concentrated version of the special features of the Washington Semester program which The American University offers for cooperating schools during the regular academic year. Supervised field study of the U.S. Government, through seminars and conferences with public officials, with interpretation and synthesis in seminars conducted by the directing School faculty member. Will require student time of five full days per week for one five-week summer session. While post-graduate students are eligible, this course will not normally apply toward SGPA graduate degree program requirements. *Prerequisite: permission, after advisory consultation or correspondence.* The student should have the background of at least one graduate course in American Government.

56.531 Urban Affairs Laboratory (6)

Intensive field study of urban affairs and the Federal-urban relation in the Washington, D.C. setting. Laboratory focus on selected special topics which vary from term to term, with seminar meetings and conferences with representatives of governmental and private agencies concerned with the topic selected. Students assigned extensive readings and special prob-

lems for personal investigation. The whole will be tied together with interpretive sessions with the supervising faculty member. *Prerequisite: permission.*

56.691 In-Service Training Projects (3)

Opportunity for a limited number of qualified persons to receive credit for job-related study and research, under the joint supervision of the School faculty and officers of the agency of employment. Such agencies may be either governmental or private. *Prerequisite: permission.*

56.630 Graduate Internships in National, State, and Local Government, or in a Research Organization (6)

Arrangements for scheduled work assignments in participation, observation, and research, and seminar integration under cooperative supervision of a government official or a research director and a member of the School faculty.

The Teaching of Politics and Government

56.740 Colloquium on the Teaching of Politics and Government (1)

A very informal association of groups of faculty members with those students who intend the college level of teaching as a career, to convey perspectives and experience, and to guide the participating students in systematic preparation. *Prerequisites: Graduate standing and permission.*

Reading, Research and Tutorial

56.590 Advanced Reading Project (3)

As arranged with advisor and supervising faculty member.

56.690 Graduate Research Project (3)

As arranged with advisor and supervising faculty member. For students who have been advanced to candidacy for the Master's or Ph.D. degrees, such a research project may be developed as a comprehensive case study in politics, government, administration, or the technology of management, for credit up to 6 hours.

56.695 Tutorial Seminar for Foreign Graduate Students (No Credit)

The vehicle for registration by foreign graduate students who require it for special assistance in their intercultural academic problems. Cost of registration determined on a special fee basis, ranging from \$200 to \$500 per semester depending on the extent and character of the assistance required.

56.797 Master's Thesis Seminar in Politics and Government, Public Administration or the Technology of Management (6)

56.799 Doctoral Dissertation Seminar in Politics and Government, Public Administration and Management, or the Technology of Management (6)

**Public Administration courses
continue on page 227.**

Health, Physical Education and Recreation

49.130 Physical Education Activities (1)

Instruction in the fundamentals of selected sports and recreational activities, both beginning and intermediate level. Includes Archery, Badminton, Bowling, Canoeing, Diving, Fencing, Golf, Gymnastics, Horseback Riding, Judo, Life Saving, Modern Dance, Social and Ethnic Dance, Square Dance, SCUBA Diving, Swimming, Tennis, Volleyball, and Weight Training.

49.111 (Men) Football-Wrestling (2)

Development of skills, techniques and methods in teaching each sport, including rules and team organization.

49.112 Soccer-Swimming (2)

Development of skills, techniques and methods in teaching each sport, including rules and team organization.

49.113 (Men) Basketball-Baseball (2) (Women) Basketball-Softball (2)

Development of skills, techniques and methods in teaching each sport, including rules and team organization.

49.114 Gymnastics-Track and Field (2)

Development of skills, techniques and methods in teaching each sport, including rules.

49.121 History and Principles of Health, Physical Education and Recreation (3)

Introduction to the professions of Health, Education, Physical Education and Recreation. Consideration of development, role in general education, and scientific principles guiding the conduct of these programs.

49.205 The Teaching of Individual, Dual and Group Recreational Activities (1)

Development of skills and methods in teaching Archery, Badminton, Bowling, Fencing, Golf, Square and Ethnic Dance, Tennis and Volleyball. *Prerequisite:* Permission of Departmental Advisor.

49.210 Workshop in Dance Production (1)

Development of techniques and the provision of experience in the various phases of dance production. May be repeated for credit.

49.220 First Aid and Athletic Injuries (2)

Techniques of administering immediate and temporary care to an injured person with emphasis on the prevention and treatment of injuries prevalent in athletics.

49.222 (Women) Rules and Officiating (2)

Study of rules and officiating techniques of selected sports. Supervised practice in officiating. May be repeated for credit.

49.301 Water Safety Instructor (2)

Preparation for the teaching of swimming and diving. Techniques for adequate safety. *Prerequisite:* Senior Life Saving.

49.310 Elementary School Rhythmic Activities (3)

Survey of materials and methods of teaching fundamental movement, rhythms and singing games at elementary school level. *Prerequisite:* Junior standing.

49.320 Methods and Materials in Physical Education (3)

Principles and techniques of instruction applicable to physical education at elementary and secondary school levels.

49.324 Principles and Psychology of Coaching (3)

Principles and techniques of coaching athletic teams: emphasis on the psychology of teaching and motivating athletes.

49.325 Rhythms and Accompaniment (2)

Development of an awareness of rhythms and an understanding of the basic elements of time; ability to apply these to dance composition and accompaniment.

49.326 History and Philosophy of Dance (3)

Understanding and appreciation of the contribution of dance to the cultural development of mankind.

49.335 Elementary School Play and Games (3)

Survey and application of physical education and play activities for elementary school children. *Prerequisite:* Junior standing.

49.400 Advanced Methods of Teaching Modern Dance (1)

An understanding of the value of dance education and the development of approaches to teaching dance at the various age levels.

49.401 Composition of Dance (1)

Discovery of a rich movement vocabulary and the ability to organize these into appropriate dance forms.

49.421 Organization and Administration of Health, Physical Education and Athletics (3)

Principles of organizing and administering health, physical education and athletic programs. Consideration of personnel, schedules, equipment, facilities, curriculum, and related problems.

49.424 Kinesiology and Physiology of Exercise (3)

Mechanical principles applied to the performance of motor skills and physiological changes in the body during and after activity.

49.500 Measurement and Evaluation in Health and Physical Education (3)

Purposes and principles of measurement and evaluation in health and physical education. Survey of selected tests and basic statistical techniques for interpretation of results.

49.501 Health Education (3)

Content and method in teaching health education at both elementary and secondary school levels.

49.520 Current Problems, Trends and Research in Physical Education (3)

Identification of current problems in the profession and a survey and interpretation of research and trends pertaining to them.

49.530 Curriculum in Physical Education (3)

Principles and procedures of curriculum development in physical education.

49.550 Recreation Programs (3)

Survey of agencies and programs in the field of recreation with attention to principles and techniques for conducting these programs.

49.601 Workshop in Health, Physical Education and Recreation (3)

Investigation of a specific timely topic in the area of Health, Physical Education and Recreation. Content will vary each semester. May be repeated for credit.

49.610 Planning Facilities for Health, Physical Education and Recreation (3)

Principles, criteria, and standards used in planning facilities for Health, Physical Education and Recreation.

History

29.101 Selected Human Problems: Past and Present I (3)

Consideration of specific broad problems manifested in the past and areas of tension in the present. Man's problems throughout time with reference to the state in its many forms; to *work*, *wealth*, and the interpersonal relations of earning a living; and to *nature* with the development of science and technology and its effects on the environment.

29.102 Selected Human Problems: Past and Present II (3)

Consideration of specific broad problems manifested in the past and areas of tension in the present. Man's problems throughout time with reference to *religion*; to *global involvement* from the imposition of Western dominance to the death of Europocentrism; to *war*, both traditional and total, and to the concomitant search for peace.

29.191 Freshman Seminar (3)

Readings and research in selected historical topics for first year undergraduates. May be taken twice for credit, with departmental permission.

29.201 The Ancient World: The Ancient Near East (3)

Egypt, Mesopotamia, Crete, Assyria, Persian Empires, Mycenaean Greece.

29.202 The Ancient World: Greece (3)**29.203 The Ancient World: Rome (3)****29.204 Medieval Europe (3)**

Topics in Medieval political, social, religious and economic history.

29.205 History of Modern Europe I (3)

Nature, causes, social consequences of the Reformation. Catholic Reformation. Evolution of political ideologies and institutions. Expansion of commerce and the growth of empires. French Revolution and the Age of Napoleon.

29.206 History of Modern Europe II (3)

Development of European nationalities from 1815 to the present. Age of Metternich, rise of liberalism, industrial revolution, and social, cultural, and economic bases of nationalism and imperialism.

29.291 Sophomore Seminar (3)

Readings and research in selected topics for second year undergraduates. May be taken twice on advice and with departmental permission.

29.301 History of England I (3)

Political, economic, social, and cultural life in England to 1689. Origins and development of constitutional government. Beginnings of empire.

29.302 History of England II (3)

England and the British Empire since 1689. Evolution of constitutional government, expansion of empire, the empire system since World War II.

29.305 History of Latin America to 1860 (3)

Colonization by Spain, Portugal, and France. Causes and developments of independence movements. Political, social, economic and ideological aspects of national developments.

29.306 Latin America Since 1860 (3)

Economic nationalism, militarism, and reform movements. Cultural and religious developments.

29.309 History of Russia I (3)

The eastern Slavs from the 10th century to the empire of Alexander II. Development of institutions and culture.

29.310 History of Russia II (3)

Russia encounters industrialization and revolution, from the Emancipation to the Khrushchev era. Emphasis on internal political, socio-economic, and cultural developments.

29.313 History of East Central Europe I (3)

From the Baltic to the Balkans. Political, economic and intellectual development to the 1870's.

29.314 History of East Central Europe II (3)

From the Baltic to the Balkans. Political, economic, and intellectual development since the 1870's.

29.317 Economic and Social History of U.S. I (3)

From colonial times to the Civil War. American life: the family, agriculture, industry and commerce, labor, immigration, slavery, religion, and westward movement.

29.318 Economic and Social History of U.S. II (3)

Analysis of American society since the Civil War with special attention to social classes and ethnic groups, urbanization, industrialism, technology, education, literature, and religion.

29.321 The Afro-American in U.S. History (3)

The experience of Blacks in America from 1619 to the present. Contributions Blacks have made to American society and the effect of White society upon the Blacks. Suggested prerequisite: U.S. History I-II.

29.325 Introduction to African History (3)

Attempt to assess the historicity of human experience in Saharan Africa and in Africa south of the Sahara. Attention to the development and disruption of Black cultures in Africa.

29.329 Islam in the World (3)

Historical background of the age of the Prophet; development and expansion of Islamic Civilization from the seventh century to the recent past.

29.333 The City in History (3)

Historical development of the city; the place of the city in the history of civilization; the city as a blessing and as a problem.

29.341-342 Introduction to Asian Histories I-II (3-3)

Fundamental characteristics of four major Asian regions: Japan, China, Southeast Asia, and India. Comparative approach, focusing on problems of concerning the historical development of all four regions. 29.341 is prerequisite to 29.342.

29.401 Historiography (3)

Nature and scope of historical study; purposes and uses of history; its relations to other disciplines; historical quantification; some interpretative debates; the old history, the new, and the new new.

29.491 Senior Seminar: U.S. History (3)

Introduction to methods and materials in historical research and writing, with special emphasis on resources in the Washington area. Senior standing in department or approval. May not be taken in same semester as practice teaching.

29.491 Undergraduate Seminar: Europe and Other Areas (3)

Senior standing in department or approval. May not be taken in same semester as practice teaching.

EUROPE**29.501 Period Studies in Western European History (3)**

Readings and lectures in selected periods of Modern Western European History. Periods treated on a rotational basis include Renaissance, Reformation, Europe 1914-1939, Europe since 1939, as well as selected periods in 17th, 18th and 19th-century history.

29.503 Period Studies in French History (3)

Readings and lectures on selected periods of French History. *Not offered in 1969-70.*

29.505 Period Studies in German History (3)

Readings and lectures on selected periods of German History, including the period from Bismarck to Adenauer.

29.507 Period Studies in Russian and East European History (3)

Readings and lectures on selected periods and areas of Russian and East European History.

29.509 Period Studies in British History (3)

Readings and lectures on selected periods of British Colonial and British Imperial History.

29.521 Topics in Western European History I (3)

Lectures and readings on selected topics in early modern Western European History.

29.522 Topics in Western European History II (3)

Lectures and readings on selected topics in recent modern Western European History.

29.525 Topics in British History I (3)

Lectures and readings on selected topics in early modern British History.

29.526 Topics in British History II (3)

Lectures and readings on selected topics in recent modern British History.

29.529 Topics in Russian and East European History I (3)

Lectures and readings on selected topics in early Russian and East European History.

29.530 Topics in Russian and East European History II (3)

Lectures and readings on selected topics in early Russian and East European History.

29.551 Intellectual History of Europe I (3)

Ideas and outlooks that have influenced the development of western history from the 13th century to the 17th.

29.552 Intellectual History of Europe II (3)

The Scientific Revolution, Enlightenment and Romanticism; late 17th century, 18th, and early 19th century thought.

29.553 Intellectual History of Europe III (3)

European thought in the transition of the machine age from the young Hegelians to the Existentialists.

29.561 European Economic History I (3)

European economic development in early modern times. *Not offered in 1969-70.*

29.562 European Economic History II (3)

European economic development from the late 18th century. *Not offered in 1969-70.*

29.569 Diplomatic History of Europe I: 1789-1871 (3)

Wars of the French Revolution and Napoleon; the Metternich Era; the revolutions of 1848-49; the unification of Italy and of Germany.

**29.570 Diplomatic History of Europe II:
1871-1939 (3)**

Continuation of 29.569, but may be taken as a separate course. Era of Bismarck; formation of alliances and counter-alliances; diplomacy of colonial imperialism; First World War and the Versailles settlements; the totalitarian threat to the balance of power.

UNITED STATES

29.511 Period Studies in U.S. History (3)

Readings and lectures in selected periods of U.S. History, including Colonial.

29.531 Topics in U.S. History I (3)

Lectures and readings on selected topics in early U.S. history.

29.532 Topics in U.S. History II (3)

Lectures and readings on selected topics in recent U.S. history.

29.555 Intellectual History of the U.S. I (3)

Ideas and attitudes of the American people and their leaders from colonial times to the Civil War. Puritanism, the enlightenment, transcendentalism, democracy, and nationalism.

29.556 Intellectual History of the U.S. II (3)

Dominant patterns of American thought from the Civil War to the present. Impact of Darwinian evolution, industrialism, the vanishing frontier, progressive democracy, imperialism, and war.

29.565 Economic History of the U.S. I (3)

American economic development from the colonial beginnings to the mid-19th century. *Not offered in 1969-70.*

29.566 Economic History of the U.S. II (3)

American economic development during the past one hundred years. *Not offered in 1969-70.*

**29.573 History of U.S. Foreign Policy I:
1776-1889 (3)**

Historical treatment and critical analysis of American Foreign Policy from the beginning to the end of the Post Civil War Era.

**29.574 History of U.S. Foreign Policy II:
1889 to the Present (3)**

Continuation of 29.573 to the present; growing role of the U.S. in world affairs. May be taken separately from 29.573.

LATIN AMERICA

**29.513 Period Studies in Latin American
History (3)**

Readings and lectures on selected periods and areas of Latin American History.

**29.537 Topics in Latin American History
I (3)**

Lectures and readings on selected topics in early Latin American History.

**29.538 Topics in Latin American History
II (3)**

Lectures and readings on selected topics in recent Latin American History.

**29.559 Latin American Intellectual
History (3)**

Spanish and Portuguese backgrounds. Ideas of the Independence leaders. Mid-century liberalism and romanticism. Positivist thought. Contemporary trends.

**29.577 Diplomatic History of Latin
America (3)**

History of the relations of the nations with each other, with nations of Europe, and with the United States, since independence. Principal attention to Argentina, Brazil, Chile, Mexico, Peru, Colombia, and Venezuela.

**ASIA, AFRICA, COMPARATIVE HISTORY,
IMPERIALISM**

**29.515 Period Studies in Non-Western
History (3)**

Readings and lectures in selected periods of the history of selected areas of the non-Western World.

**29.541 Topics in the History of Expansion
and Imperialism (3)**

Lectures and readings on selected aspects of the history of expansion and imperialism. *Not offered in 1969-70.*

29.545 Topics in Non-Western History I (3)

Lectures and readings on selected topics in the earlier period of Asian or African histories.

**29.546 Topics in Non-Western History
II (3)**

Lectures and readings on selected topics in the more recent period of Asian or African histories.

29.549 Topics in Comparative History (3)

Lectures and readings on selected topics in comparative history. *Not offered in 1969-70.*

ARCHIVES

**29.581 History of Archival Administration
(3)**

The nature of archives and concepts of archival administration. Comparative survey of the history and present practice in the principal countries of the world, with special emphasis on the U.S.

**29.582 Archival Administration: Modern
Practice (3)**

Evaluation, preservation, organization, storage, and use of archival materials. Design, installation, and management of archival systems. Application of automatic information handling systems and techniques.

GRADUATE COLLOQUIA

- 29.620 Colloquium in European History 1500-1799 (3)
- 29.621 Colloquium in European History Since 1799 (3)
- 29.625 Colloquium in British History to 1689 (3)
- 29.626 Colloquium in British History Since 1689 (3)
- 29.630 Colloquium in U.S. History to 1865 (3)
- 29.631 Colloquium in U.S. History Since 1865 (3)
- 29.670 Colloquium in Latin American History I (3)
- 29.671 Colloquium in Latin American History II (3)

GRADUATE SEMINARS

- 29.710 Research Seminar in European History (3)
- 29.715 Research Seminar in British History (3)
- 29.740 Research Seminar in the History of the U.S. (3)
- 29.750 Research Seminar in the History of Latin America (3)
- 29.770 Research Seminar in Archives Administration (3)
- 29.797 Master's Thesis Seminar (3-6)
- 29.799 Doctoral Dissertation Seminar (3-12)

SUMMER INSTITUTES

- 31.530 Institute of Genealogical Research (0-3)
- 31.540 Institute of Archives Administration (0-3)

Honors and Tutorial Courses—(See Political Science; College of Arts and Sciences)

Hospital Training Program—(See Nursing)

Industrial Relations—(See Business Administration)

Institutes

The American University pioneered in developing these specially designed University-level programs for further professional growth of men and women already basically educated by experience and previous education who wish to systematize and increase their knowledge, keep current, and be better prepared for tomorrow's developments.

This "continuing education" for practitioners has attracted registrants from all parts of the U.S. and from many foreign countries. Curricula for the management development programs are generally planned with the active cooperation of the profession or industry concerned. Institutes usually provide intensive instruction in a concentrated period of time to minimize leave from regular duties.

Where academic credit is available, the number of hours is indicated.

BUSINESS ADMINISTRATION

31.007 Institute of Management for Appliance-TV Dealers (No Credit)

Offered for National Appliance and Radio-TV Dealers Association. Principles of management, merchandising, budgeting, store organization and operation, advertising and promotion, etc. First Year and Advanced Programs.

31.008 Institute on Tax Planning in Real Estate (No Credit)

Impact of federal income and other taxes on real estate operations, presented in simplest possible terms and directed toward needs of real estate dealers, investors, financial institutions and government officials dealing with real estate operations.

31.009 Institute on Termination of Government Contracts (No Credit)

Default and convenience termination principles and practices, for use by Government officials and industry alike, presented by a professorial lecturer and guest speakers from government and industry.

31.013 Institute on Problems of Fiduciary Obligations and Conflicts of Interest in the Modern Corporation (No Credit)

Consideration of rights, duties, and legal responsibilities of directors and officers of corporations; brokers, dealers, and underwriters; accountants; and bankers, in view of recent court and S.E.C. decisions.

31.020 Physical Distribution and Traffic Management Institute (No Credit)

Management development program for present and prospective traffic executives. Role of traffic management in sales, purchasing, market development. Effective organization, operation of traffic department. Developments in carrier facilities, rates, regulation.

31.021 Annual Air Transport Management Institute (No Credit)

Intensive study of trends, problems of commercial, military air transport.

31.022 Railroad Management Institute (No Credit)

Management Information Systems; Marketing Rail Service; Finance Planning; Automation and Labor Problems; Co-operation of Government and Carriers in High-speed Passenger Operations.

31.023 Annual Motor Transportation Management Institute (No Credit)

Executive development program for top, middle management executives. Current problems of economics, management, regulation.

31.024 International Symposium on Transportation Pricing (No Credit)

Leading world experts will discuss technology; pricing and competition; transport pricing; investment and financing; promotional and developmental pricing.

31.025 Annual Ocean Shipping and Foreign Trade Management Institute (No Credit)

Efficient shipping management; finance; administration; merchant marine policy. Foreign trade developments and opportunities for American shipping. For executives programming, directing operations.

31.026 Urban Transportation Institute (No Credit)

Scheduling, Organization Planning and Operation; Labor Relations and Personnel Management.

31.066 Institute on Church Financial Management (No Credit)

Professional guidance and practical assistance in administering church monetary resources. Budgeting, accounting, fund raising, purchasing.

31.067 Institute on Church Family Financial Planning (No Credit)

Assistance to religious leaders in planning their own family financial affairs and in helping them qualify to teach groups, counsel individuals with problems of family finance. Management of personal monetary resources in context of religious faith and family solidarity. Institute of Life Insurance provides scholarships covering part cost of tuition and books.

31.068 Institute on Church Property Management (No Credit)

Specific advanced education for pastors, committee members, staff personnel whose responsibilities include administering real estate for religious purposes. Acquiring, insuring, using, maintaining property.

31.069 Institute on Church Office Management (No Credit)

Development of further skill in administering office functions of churches and related non-profit organizations. Planning and staffing, housing and equipping, communicating and scheduling, recording and reporting.

31.070 Institute on Church Personnel Relations (No Credit)

Responsible stewardship of human resources. Determining and describing staff positions; enlisting, assigning, and training staff personnel, both volunteers and employees; developing and maintaining staff morale.

31.401 Property Management I (formerly 11.481) (3)

Management of commercial, residential property. Establishing rental values, neighborhood analysis, tenant selection, leasing, tenant and owner relationships. *Final examination may be substituted for regular course examination for Course No 1 of the Institute of Real Estate Management.*

31.501 Institute on Property Management II (formerly 11.582) (3)

Advanced analysis of multi-unit apartments, office buildings, shopping centers. Legal, tax, financing aspects. Regional analysis and urban redevelopment. Creative management. *Final examination may be substituted for regular course examination for Course No. 2 of The Institute of Real Estate Management. Prerequisite: 31.401 or 11.481 or graduate standing.*

31.502 Institute on Business Finance for High School Teachers (3)

Seminars, discussions, lectures, field trips, to increase understanding of how business firms and individuals save, borrow, invest funds. Fellowships covering tuition, luncheons, books provided by D. C. Savings and Loan League.

31.504 Institute on Real Estate Appraisal I (3)

Official Study Course No. 1 of the American Institute of Real Estate Appraisers.

Nature of real estate value; principles, mathematics of real estate appraising. *Satisfactory grade accepted by Appraisal Institute in lieu of Required Examination No. 1. Prerequisite, satisfactory completion of two real estate courses; or at least two years equivalent experience and permission of Program Director; or graduate standing.*

31.505 Institute on Real Estate Appraisal II (3)

Case study Course II of the American Institute of Real Estate Appraisers. Urban properties: appraising procedures, capitalization techniques, case studies, problems. Credit applicable towards membership in Institute. *Prerequisite: 31.504, Appraisal I of AIREA, or passing AIREA Examination I.*

EDUCATION INSTITUTES**31.631 Institute on Reading and Learning Disabilities (3)**

Guided experiences in remedial reading: diagnosis and correction of learning difficulties with children and youth. To be taken in conjunction with 21.572 or 21.673, thus providing students with work toward meeting requirements for teachers of special education, reading specialists, psychologists and counselors, and classroom teachers. Summer.

31.565 Institute: Counseling the Disadvantaged (3)

Eight week workshop dealing with the issues and problems involved in counseling disadvantaged youth. Lectures, small group discussions, field trips and panel presentation. Designed for teachers, in-service counsellors, counsellor trainees and local, state and federal employees involved in counselling disadvantaged youth. Summer.

Insurance—(See Business Administration)**Inter-Departmental Science****81.506-M Development of Scientific Thought I (3)**

(Mathematical and Physical Sciences)

81.507-M Development of Scientific Thought II (3)

(Biological and Social Sciences)

International Business—(See Business Administration)**International Labor—(See Economics; International Studies)****International Law and Organization—(See International Studies)****International Marketing—(See Business Administration)****International Relations—(See International Studies)****Investment Analysis—(See Business Administration)****International Studies****AMERICAN CIVILIZATION****33.100-101-102 American Civilization I-III (3, 3, 3)**

American Civilization I and II serve as introductory courses to the government, economics, social structure, arts, religion, and other aspects of the contemporary United States.

33.403 American Civilization: Senior Seminar (3)

Topics vary. (May be taken more than once for credit if the content is nonduplicating.)

33.604 Seminar: The Civilization of the United States (3)

A study with papers and reports on significant 20th century writings, of major aspects of American Civilization.

33.605 Seminar: Interpreting American Civilization Abroad (3)

Readings in foreign images of the United States. Research papers on topics selected from American civilization in which non-Americans have evidenced particular interest.

AREA STUDIES**AFRICA****33.424 Introduction to Africa (3)****33.624 Problems of Contemporary Africa (3)****33.645 Labor in an Area; Africa South of the Sahara (3)**

33.697-698 Seminar in Africa (6, 6)

33.785 Seminar on Africa (3)

EASTERN EUROPE

33.432 International Relations of Eastern Europe (3)

Prerequisite: 33.200.

33.632 International Relations of Eastern Europe (3)

33.789 Seminar on Eastern Europe (3)

FAR EAST

33.428 Far East in World Affairs (3)

Prerequisite: 33.200.

33.560 Cultural Factors in East-West Relations (3)

33.628 The Far East in World Affairs (3)

33.664 Ideological Aspects of Chinese Communism (3)

33.688-689 Seminar in the Far East (6, 6)

33.715 Seminar: Role of the Military in Modern China (3)

33.781 Seminar on China (3)

33.782 Seminar on Japan (3)

33.787 Seminar in Sino-Soviet Relations (3)

33.799 Seminar: Far East Culture and Society (3)

LATIN AMERICA

33.414 Introduction to Latin America (3)

33.429 International Relations of Latin America (3)

Prerequisite: 33.200.

33.533 Brazil in World Politics (3)

75.553 Colloquium on Latin America (3)

33.629 International Relations of Latin America (3)

33.645 Labor in an Area: Latin America (3)

33.653 Agrarian Problems: Latin America (3)

33.684-685 Seminar in Latin America (6, 6)

33.784 Seminar on Latin America (3)

MIDDLE EAST

33.410 Introduction to the Middle East (3)

33.425 International Relations of the Middle East (3)

Prerequisite: 33.200.

33.625 International Relations of the Middle East (3)

33.669 Nationalism in the Middle East (3)

33.786 Seminar on the Middle East (3)

33.680-681 Seminar in Middle East (6, 6)

SOUTH AND SOUTHEAST ASIA

33.415 Introduction to South Asia

33.417 Introduction to Southeast Asia (3)

33.426 South Asia in World Politics (3)

Prerequisite: 33.200.

33.427 International Relations of Southeast Asia (3)

Prerequisite: 33.200.

33.626 South Asia in World Politics (3)

33.627 International Relations of Southeast Asia (3)

33.645 Labor in an Area: South and East Asia (3)

33.653 Agrarian Problems: East and South Asia (3)

33.686 Seminar in South and Southeast Asia (3)

33.778 Seminar: Communist Political Warfare in Southeast Asia (3)

33.788 Seminar on South and Southeast Asia (3)

SOVIET UNION

33.412 Introduction to Russia (3)

33.422 Soviet Russia in World Affairs (3)

Prerequisite: 33.200.

75.543 Colloquium on the Soviet Union (3)

33.622 Soviet Russia in World Affairs (3)

33.682-683 Seminar in Soviet Union (6, 6)

33.721 Seminar in Soviet Foreign Policy (3)

33.783 Seminar on the Soviet Union (3)

33.787 Seminar on Sino-Soviet Relations (3)

WESTERN EUROPE**33.150-151 Introduction to the Western Tradition I, II (3, 3)**

This two-semester sequence serves as a basic introduction to Western European intellectual history and provides a frame of reference for later studies of the dynamics of modernization and the transition from traditional to secular society.

33.420 International Relations of Western Europe (3)

Prerequisite: 33.200.

75.523 Colloquium on France in World Affairs (3)**33.620 International Relations of Western Europe (3)****33.645 Labor in an Area: Western Europe (3)****33.693 Western Europe: Common Elements (6)****33.694 Western Europe: Germany as lead country (6)****33.695 Western Europe: Great Britain as lead country (6)****33.696 Western Europe: France as lead country (6)****INTERNATIONAL RELATIONS****GENERAL****33.200 Introduction to World Politics I (3)**

Concepts and Principles. A survey emphasizing the nature of interstate relations, factors influencing those relations, and the causes and consequences of international instability. Particular attention is paid to the sources and types of international conflict and to the techniques of conflict resolution.

33.201 Introduction to World Politics II (3)

Patterns of development. Study and relation of concepts of international politics discussed in 33.200 (e.g., balance of power, imperialism, international law, international organization) to select phases in the development of modern world politics. *Prerequisite:* 33.200.

33.302 Foreign Policies of the Great Powers (3)

Comparative analysis of the historic evolution of the foreign policies of the major powers, with special emphasis on the period since World War II and on such issues as security, imperialism, international co-operation, international organization, and the impact of technology.

33.350 Introduction to the Non-Western World (3)

This course builds upon the basic conceptual framework developed in Introduction to the Western Tradition and provides the student with the tools for in-depth study of non-Western areas.

33.491 Seminar in International Relations (3)

Selected topics. Students may repeat if topics are different. *Prerequisite:* 33.200.

33.492 Dean's Seminar (3-6)

Selected topics. Participation by invitation of faculty.

33.799 Doctoral Dissertation Seminar (3-6)**33.797 Master's Thesis Seminar (3-6)****CONTEMPORARY INTERNATIONAL RELATIONS****33.491 Seminar in International Relations (3)**

Selected topics of international relations. May be repeated for credit if substance is different.

33.4-650 Contemporary International Politics (3)

An examination and analysis of the course of international politics since the end of World War II. Topics covered include the Cold War, the non-Western revolution, the industrial, technological and military revolutions, and the changing role of international organizations. *Prerequisite:* 33.200 when taught at undergraduate level.

75.610 Contemporary Ideological Issues (3)**75.620 Seminar on World Communism (3)**

A survey of the development of the socialist and communist movements, their background, organization, doctrine and major strategic concepts; general communism strategy toward the advanced industrial and underdeveloped areas. *Prerequisite:* Modern history, Marxist theory and permission of instructor.

75.631 The Dynamics of Revolution (3)

The background and causes of revolution, and the assessment and prediction of revolutionary threat or potential. The types and stages of revolution, and the techniques of revolutionary action. The planning, organization, and conduct of revolution as a conflict instrument. The prevention and suppression of revolution.

33.672 Seminar in Unconventional Warfare (3)

An examination of modern unconventional war; its impact on the underdeveloped nations and on the conduct of United States foreign policy; political and ethical considerations.

33.673 Seminar in Unconventional Warfare (3)**33.700 Seminar in Contemporary International Relations (3)**

Individual projects, group discussion and analysis of special problems; selected topics such as problems raised by nuclear warfare, political and military aspects of arms control, and the role of the military in developing nations may be examined as the focus of the semester's work. May be taken twice for credit.

DIPLOMACY AND FOREIGN POLICY**33.4-630 American Foreign Policy (3)**

The development of the diplomatic process including the role of the President, and the Department of State in foreign affairs. Significance of international institutions in American diplomacy. *Prerequisite:* 33.200 when taught at undergraduate level.

33.563 Problem Papers in American Diplomacy (3)

Role playing course in American Diplomacy (adjustable to meet needs of foreign students). Each student is assigned the role of a desk officer for a country or group of countries or for an international organization or agency. The work consists of the preparation of typical State Department (Foreign Office) and foreign service documents, including briefing papers, position papers, political and economic reports, speech drafts, press statements, public affairs guidance, group reports, and national policy papers.

33.616 International Relations Between the Wars (3)

Diplomacy of 1919-1939 with particular reference to Europe. Development and breakdown of the French system; collective security, Fascism, and Nazism, the Soviet Union, the role of the U.S. in European affairs.

33.617 Diplomacy of World War II (3)

History of the diplomatic front during the War. Groundwork of the postwar settlement.

75.652 Seminar on National Security Policy (6)

A broad examination of the principal elements of national security policy. The world setting. Roles of Executive Branch and Congress in policy making, implementation and control. Civilian-military equation, military doctrine, strategic intelligence. Principal elements of military strategy. Operative economic factors and forces.

33.670-671 Seminar: Comparative Foreign Policy Formation I, II (3, 3)

The instruments and process of decision making in foreign policy of selected nations approached comparatively.

75.673 Seminar: Foreign Policy Formation in the United States (3)

The conduct and control of foreign policy, with special emphasis on administrative and policy problems of the United States and selected foreign countries due to the impact of foreign policy in the domestic and international field; on State Department organization and its relation to other departments. Congress, the President and public opinion. Members may select key problems showing the making and control in relation to strategic, military, fiscal and economic practice. *Prerequisite:* a course in American Government.

33.679 Seminar and Workshop in Intelligence Research and Analysis (6)**INTERNATIONAL COMMUNICATION****75.4-639 Foundations of International Communications (3)**

The conceptions, problems, and techniques of international communication in terms of individual and group behavior as represented in social psychology and allied disciplines.

75.633 Psychological and Cultural Bases of International Politics (3)

Phenomena and problems of international politics in terms of underlying psychological and cultural forces: theory of international politics from behavioral-science points of view.

75.638 Information and Persuasion in Cross-Cultural Contacts (3)

A comparative examination of the theory and practice of effective international communication techniques as applied by government and non-government organizations and individuals. *Prerequisite:* 75.4-639 and permission.

75.650 International Political Communication (3)

Psychological aspects of foreign policy and role of communication. Problems presented by use of propaganda media of international communication in the service of national policy.

75.675 Political Communication and Foreign Policy: Systems of Support (3)

The course analyzes cultural, economic, and technical programs that governments use to create a favorable background for foreign policy aims. Conducted along workshop lines, one of the course objectives is to publish papers based on individual and group research.

INTERNATIONAL LAW**33.4-600 Introduction to International Law (3)**

Nature, sources and development of international law and its most important substantive elements. Emphasis on the place of international law in relation to other international studies. *Prerequisite:* 33.200 when taught at undergraduate level.

33.661 Seminar: History and Theory of International Law (3)

Development of international law from the earliest times. Leading theories of the sources, origin and binding force of international law. Study and discussion of the classic publicists. Individual research projects. *Prerequisite:* International law and/or organization.

33.662 Seminar: Contemporary Problems in International Law (3)

Study and discussion of such contemporary problems as: individual responsibility under international law; control of outer space; changing concepts of the territorial sea; relationship of international law and international organization. Individual research projects. *Prerequisite:* International law and/or organization.

33.770 Seminar on International Law (3)

Selected problems in international law including international, constitutional, administrative, and criminal law and international legislation. *Prerequisite:* 6 hours in international law and/or organization.

INTERNATIONAL ORGANIZATION**33.4-640 Introduction to International Organization (3)**

A study of the organizational system of the international community; processes and institutionalized forms of international order. *Prerequisite:* 33.200 when taught at undergraduate level.

33.4-651 United Nations Organization and Functions (3)

The Charter, origins, functions, operation of the principal organs with emphasis upon the General Assembly and the Security Council, admission of members, obligation of membership. *Prerequisite:* 33.200 when taught at undergraduate level.

75.641 Seminar on International Administration (6)

Nature and history of international administration, and its meaning within the study of international relations and organization. Theory and practice of functionalism. Secretariat structure and operation, with emphasis upon the League of Nations. Special problems of administration at the international level. *Prerequisite:* at least one course in International Organization or Public Administration, or permission.

33.652 United Nations Economic and Social Operations (3)

A broad understanding of both the theoretical and practical aspects of the economic and social functions of the United Nations system, including the specialized agencies. Attention will be given to the political as well as economic and social forces that have shaped the system, the general pattern of activity in major substantive areas, including economic development, trade and social measures, problems concerning both national and international decision-making processes, and the likely future development of these programs.

33.654 Seminar: Organization of American States (3)

Organization and operation of the Organization of American States and affiliated organization. Inter-American security and peace system. Relationship of the system to the United Nations.

33.655 The United States and International Organization (3)

The political science of U.S. participation in international organization. Background and consequences of expanded U.S. participation. Executive and Congressional roles in development and execution of U.S. international organization policies and activities. Examination of selected problem areas such as financing, international administration, economic and social development, politico-military action. Prospects and problems of development.

75.658 Seminar on Regional Organizations: Western Europe (3)

A survey of the factors responsible for the trend toward European organization and integration, and an examination of the more important institutions of the European community: ECSCA, EEC, WEU, Euratom, etc. *Prerequisites:* Introduction to Economics or International Economics, Modern European History.

33.675 Seminar on the United Nations (3-6)

Selected problems on the United Nations and specialized agencies.

33.750 Seminar in International Organization (3)

The nature of organization and administration at the international level, with special reference to existing international agencies. Individual research and written reports.

THEORY OF INTERNATIONAL RELATIONS**33.460 Behavioral Approaches to International Politics (3)**

Prerequisite: 33.200.

33.4-667 Theory of International Relations (3)

A study of the various theories of international relations. *Prerequisite:* 33.200 when taught at undergraduate level.

33.519 Values and Objectives in Foreign Policy (3)

Role of ethical considerations in foreign policy. Meanings of national interest. Power, reason, and value as determinants. *Prerequisite:* 6 relevant hours in either diplomatic history, ethics and/or international law.

75.569 Philosophic and Religious Aspects of World Relations (3)

An inquiry into the philosophical and religious issues raised and presupposed by present day world conditions. *Prerequisite:* Introductory course in philosophy or political theory and a course in international relations.

33.610 International Relations and Comparative Politics: Methods and Approaches (3)

An introduction to the methodology of the field.

33.612 Seminar: Topics in Political Thought (3)

Intensive investigation of topics concerning concepts, movements, ideologies and significant theorists.

33.665 Revolutionary Theories of World Politics (3)**33.668 Liberal Theories of World Politics (3)**

A comparative analysis of the views on world politics of some twelve major liberal statesmen and philosophers of the 19th and 20th centuries. The focus will be on the light their doctrines cast on the problems of achieving a liberal world order.

33.710 Seminar in Theories of International Relations (3)

An examination and analysis of the various trends and theories of international relations.

33.711 Seminar: International Relations and Comparative Politics: Methods and Approaches (3)**INTERNATIONAL LABOR****33.641-642 World Labor and Contemporary International Relations I, II (3, 3)**

Evaluation of the influence of labor's new political and economic status on world affairs. Comparative labor ideologies and other labor issues in key areas of the world affecting international relations.

75.672 History of the International Labor Movement (3)

Development of international labor movement from mid-19th century to the present; origins, ideologies, aims, impact on world events, and structure of Socialist, Christian, Anarchist, and Communist Internationals.

75.676 Social and Labor Problems of Underdeveloped Areas (3)

Role of labor in new countries and dependent areas, labor's political orientation, contributions to the formation of new nations, relationship to new governments and attitudes toward new social and economic objectives; problems in recruiting leaderships and in applying trade unionism; labor's impact on the pattern and pace of industrialization.

33.677 Seminar in International Relations (3-6)

Selected ideological, political, economic and administrative problems in international labor relations. Special individual projects in key current issues.

WORLD HUMAN NEEDS

33.543-544 World Human Needs I, II (3, 3)

Journalism—(See Communications)

Land Planning—(See Business Administration)

Language and Area Studies—(See International Studies)

Languages and Linguistics

Academic credit may not be earned for language courses below the level already completed by the student elsewhere, including high school.

Students will be granted language requirement credit for the first semester of an elementary or intermediate language course only upon the successful completion of the second semester. In all language courses, students are expected to do individual language laboratory work outside of class.

37.175 Arabic, Elementary I (4)*

Emphasis on audio-lingual skills. Drills on the main features of classical Arabic structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.176 Arabic, Elementary II (4)*

Continuation of 37.175. *Prerequisite:* 37.175 or equivalent.

37.185 Chinese, Elementary I (4)*

Emphasis on audio-lingual skills. Drills on Mandarin structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.186 Chinese, Elementary II (4)*

Continuation of 37.185. *Prerequisite:* 37.185 or equivalent.

37.100 Czech, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Basic vocabulary. Five clock hours per week of class instruction.

37.101 Czech, Elementary II (4)

Continuation of 37.100. *Prerequisite:* 37.100 or equivalent.

37.120 French, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Five clock hours per week of class instruction.

37.121 French, Elementary II (4)

Continuation of 37.120. *Prerequisite:* 37.120 or equivalent.

37.220 French, Intermediate I (4)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.121 or equivalent.

37.221 French, Intermediate II (4)

Continuation of 37.220. *Prerequisite:* 37.220 or equivalent.

37.222 French, Intermediate for Research I (3)

Development of reading and comprehension skills. Text material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite:* one year college French or equivalent.

37.223 French, Intermediate for Research II (3)

Continuation of 37.222. *Prerequisite:* 37.222 or equivalent.

37.320 French, Advanced I (4)

Perfection of audio-lingual skills. Progression from controlled conversation to free speech. Systematic exercises on style. Idioms. Semantic problems. Five clock hours per week of class instruction. *Prerequisite:* 37.221 or equivalent.

37.321 French, Advanced II (4)

Continuation of 37.320. *Prerequisite:* 37.320 or equivalent.

37.322 French, Advanced Reading and Composition I (3)

Perfection of reading and writing skills, special emphasis on composition. Systematic exercises on style. *Prerequisite:* 37.223 or equivalent.

* Available only through Consortium of Universities (see page 38).

37.323 French, Advanced Reading and Composition II (3)

Continuation of 37.322. *Prerequisite:* 37.322 or equivalent.

37.420 French Civilization I (3)

Selected cultural topics. Emphasis on contemporary scene. *Prerequisite:* three years college French or equivalent.

37.421 French Civilization II (3)

Selected cultural topics. Emphasis on historical development. *Prerequisite:* three years college French or equivalent.

37.422 French, Pro-Seminar in Literature I (3)

Discussion group with emphasis on selected topics and individual problems, in French. *Prerequisite:* Three years college French or equivalent.

37.423 French, Pro-Seminar in Literature II (3)

Same as 37.422, with different topics. *Prerequisite:* three years college French or equivalent.

37.130 German, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction.

37.131 German, Elementary II (4)

Continuation of 37.130. *Prerequisite:* 37.130 or equivalent.

37.230 German, Intermediate I (4)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.131 or equivalent.

37.231 German, Intermediate II (4)

Continuation of 37.230. *Prerequisite:* 37.230 or equivalent.

37.232 German, Intermediate for Research I (3)

Development of reading and comprehension skills. Text material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite:* one year college German or equivalent.

37.233 German, Intermediate for Research II (3)

Continuation of 37.232. *Prerequisite:* 37.232 or equivalent.

37.330 German, Advanced I (4)

Perfection of audio-lingual skills. Progression from controlled conversation to free speech. Systematic exercises on style. Idioms. Semantic problems. Five clock hours per week of class instruction. *Prerequisite:* 37.231 or equivalent.

37.331 German, Advanced II (4)

Continuation of 37.330. *Prerequisite:* 37.330 or equivalent.

37.332 German, Advanced Reading and Composition I (3)

Perfection of reading and writing skills, with special emphasis on composition. Systematic exercises on style. *Prerequisite:* 37.233 or equivalent.

37.333 German, Advanced Reading and Composition II (3)

Continuation of 37.332. *Prerequisite:* 37.332 or equivalent.

37.430 German Civilization I (3)

A survey of German civilization: beginning of the Christian era to the end of the 17th century, in German. *Prerequisite:* three years college German or equivalent.

37.431 German Civilization II (3)

Survey of German civilization from the beginning of the 18th century to the present time, in German. *Prerequisite:* three years college German or equivalent.

37.432 German, Pro-Seminar in Literature I (3)

Discussion group with emphasis on selected topics and individual problems, in German. *Prerequisite:* three years college German or equivalent.

37.433 German, Pro-Seminar in Literature II (3)

Same as 37.432, with different topics. *Prerequisite:* three years college German or equivalent.

37.290 Greek, Intermediate Ancient I (3)

Study of forms and syntax with oral and written drills. Work with tapes in the language laboratory. Reading from classical authors (Plato, Homer). *Prerequisite:* one year college Greek or equivalent.

37.291 Greek, Intermediate Ancient II (3)

Continuation of 37.290. *Prerequisite:* 37.290 or equivalent.

37.155 Hebrew, Elementary Modern I (4).

Presentation and drill of Hebrew structure. Basic vocabulary. A five-clock hour per week semi-intensive language course; emphasis on the audio-lingual skills.

37.156 Hebrew, Elementary Modern II (4)

Continuation of 37.155. *Prerequisite:* 37.155 or equivalent.

37.195 Hindi, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on Hindi structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.196 Hindi, Elementary II (4)

Continuation of 37.195. *Prerequisite:* 37.195 or equivalent.

37.295 Hindi, Intermediate I (4)

Emphasis on further development of audio-lingual skills and on Hindi structure. Further development of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* one year college Hindi or equivalent.

37.296 Hindi, Intermediate II (4)

Continuation of 37.295. *Prerequisite:* 37.295 or equivalent.

37.395 Hindi, Advanced I (4)*

Audio-lingual skills, reading and writing. Systematic exercises on style. Idioms. Semantic problems. Five clock hours per week of class instruction. *Prerequisite*: two years college Hindi or equivalent.

37.396 Hindi, Advanced II (4)*

Continuation of 37.395. *Prerequisite*: 37.395 or equivalent.

37.102 Hungarian, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on structure. Inductive presentation of grammar. Active vocabulary. Five clock hours per week of class instruction.

37.103 Hungarian, Elementary II (4)

Continuation of 37.102. *Prerequisite*: 37.102 or equivalent.

37.115 Indonesian Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on Indonesian structure. Inductive presentation of grammar. Active vocabulary. Introduction to reading and writing. Five clock hours per week of class instruction.

37.116 Indonesian, Elementary II (4)

Continuation of 37.115. *Prerequisite*: 37.115 or equivalent.

37.215 Indonesian, Intermediate I (4)

Emphasis on further development of audio-lingual skills and on Indonesian structure. Further development of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite*: one year college Indonesian or equivalent.

37.216 Indonesian, Intermediate II (4)

Continuation of 37.215. *Prerequisite*: 37.215 or equivalent.

37.315 Indonesian, Advanced I (4)*

Audio-lingual skills, reading and writing. Systematic exercises on style. Idioms. Semantic problems. Five clock hours per week of class instruction. *Prerequisite*: two years college Indonesian or equivalent.

37.316 Indonesian, Advanced II (4)*

Continuation of 37.315. *Prerequisite*: 37.315 or equivalent.

37.165 Japanese, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on Japanese structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.166 Japanese, Elementary II (4)

Continuation of 37.165. *Prerequisite*: 37.165 or equivalent.

37.265 Japanese, Intermediate I (4)

Emphasis on further development of audio-lingual skills and on Japanese structure. Further development of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite*: one year college Japanese or equivalent.

37.266 Japanese, Intermediate II (4)

Continuation of 37.265. *Prerequisite*: 37.265 or equivalent.

37.365 Japanese, Advanced I (4)*

Audio-lingual skills, reading and writing. Systematic exercises on style. Idioms. Semantic problems. Five clock hours per week of class instruction. *Prerequisite*: Two years college Japanese or equivalent.

37.366 Japanese, Advanced II (4)*

Continuation of 37.365. *Prerequisite*: 37.365 or equivalent.

37.107 Korean, Elementary I (4)*

Emphasis on audio-lingual skills. Drills on Korean structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.108 Korean, Elementary II (4)*

Continuation of 37.107. *Prerequisite*: 37.107 or equivalent.

37.300 Language, Introduction to (3)

The nature of language. The field of linguistics. Languages of the world. Linguistic terminology.

37.292 Latin, Intermediate I (3)

Study of forms and syntax with oral and written drills. Readings from classical authors (Caesar, Tacitus, Ovidius, Virgil and others). *Prerequisite*: one year college Latin or equivalent.

37.293 Latin, Intermediate II (3)

Continuation of 37.292. *Prerequisite*: 37.292 or equivalent.

37.140 Russian, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction.

37.141 Russian, Elementary II (4)

Continuation of 37.140. *Prerequisite*: 37.140 or equivalent.

37.240 Russian, Intermediate I (4)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite*: 37.141 or equivalent.

37.241 Russian, Intermediate II (4)

Continuation of 37.240. *Prerequisite*: 37.240 or equivalent.

37.242 Russian, Intermediate for Research I (3)

Development of reading and comprehension skills. Text material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite*: one year college Russian or equivalent.

37.243 Russian, Intermediate for Research II (3)

Continuation of 37.242. *Prerequisite*: 37.242 or equivalent.

37.340 Russian, Advanced I (4)

Perfection of audio-lingual skills. Progression from controlled conversation to free speech. Systematic exercises on style. Idioms. Semantic problems. Five clock hours per week of class instruction. *Prerequisite:* 37.241 or equivalent.

37.341 Russian, Advanced II (4)

Continuation of 37.340. *Prerequisite:* 37.340 or equivalent.

37.342 Russian, Advanced Reading and Composition I (3)

Perfection of reading and writing skills, with special emphasis on composition. Systematic exercises on style. *Prerequisite:* 37.243 or equivalent.

37.343 Russian, Advanced Reading and Composition II (3)

Continuation of 37.342. *Prerequisite:* 37.342 or equivalent.

37.440 Russian Civilization I (3)

Russian civilization from Kiev Rus period to the 1860's, in Russian. *Prerequisite:* three years college Russian, or equivalent.

37.441 Russian Civilization II (3)

Russian civilization from the 1860's to the present time, in Russian. *Prerequisite:* three years college Russian or equivalent.

37.442 Russian, Pro-Seminar in Literature I (3)

Discussion group with emphasis on selected topics and individual problems, in Russian. *Prerequisite:* three years college Russian or equivalent.

37.443 Russian, Pro-Seminar in Literature II (3)

Same as 37.442, with different topics. *Prerequisite:* three years college Russian or equivalent.

37.150 Spanish, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction.

37.151 Spanish, Elementary II (4)

Continuation of 37.150. *Prerequisite:* 37.150 or equivalent.

37.250 Spanish, Intermediate I (4)

Audio-lingual skills, reading and writing. Copious drills. Text material is focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* one year college French or equivalent.

37.251 Spanish, Intermediate II (4)

Continuation of 37.250. *Prerequisite:* 37.250 or equivalent.

37.252 Spanish, Intermediate for Research I (3)

Development of reading and comprehension skills. Text material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite:* one year college Spanish or equivalent.

37.253 Spanish, Intermediate for Research II (3)

Continuation of 37.252. *Prerequisite:* 37.252 or equivalent.

37.350 Spanish, Advanced I (4)

Perfection of audio-lingual skills. Progression from controlled conversation to free speech. Systematic exercises on style. Idioms. Semantic problems. Five clock hours per week of class instruction. *Prerequisite:* 37.251 or equivalent.

37.351 Spanish, Advanced II (4)

Continuation of 37.350. *Prerequisite:* 37.350 or equivalent.

37.352 Spanish, Advanced Reading and Composition I (3)

Perfection of reading and writing skills, with special emphasis on composition. Systematic exercises on style. *Prerequisite:* 37.253 or equivalent.

37.353 Spanish, Advanced Reading and Composition II (3)

Continuation of 37.352. *Prerequisite:* 37.352 or equivalent.

37.450 Spanish (Hispanic) Civilization I (3)

Hispanic civilization from Roman times to the end of the 17th century, in Spanish. *Prerequisite:* three years college Spanish or equivalent.

37.451 Spanish (Hispanic) Civilization II (3)

Hispanic civilization from the 18th century to the present, in Spanish. *Prerequisite:* three years college Spanish or equivalent.

37.452 Spanish, Pro-Seminar in Literature I (3)

Discussion group with emphasis on selected topics and individual problems, in Spanish. *Prerequisite:* three years college Spanish or equivalent.

37.453 Spanish, Pro-Seminar in Literature II (3)

Same as 37.452, with different topics. *Prerequisite:* three years college Spanish or equivalent.

37.109 Tamil, Elementary I (4)*

Emphasis on audio-lingual skills. Drills on Tamil structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.110 Tamil, Elementary II (4)*

Continuation of 37.109. *Prerequisite:* 37.109 or equivalent.

37.105 Thai, Elementary I (4)

Emphasis on audio-lingual skills. Intensive drills on Thai structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.106 Thai, Elementary II (4)

Continuation of 37.105. *Prerequisite:* 37.105 or equivalent.

37.205 Thai, Intermediate I (4)*

Emphasis on further development of audio-lingual skills and on Thai structure. Further development of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* one year college Thai or equivalent.

* Not available 1969-70.

37.206 Thai, Intermediate II (4)*

Continuation of 37.205. *Prerequisite:* 37.205 or equivalent.

37.305 Thai, Advanced I (4)*

Audio-lingual skills, reading and writing. Systematic exercises on style. Idioms. Semantic problems. Five clock hours of class instruction. *Prerequisite:* two years college Thai or equivalent.

37.306 Thai, Advanced II (4)*

Continuation of 37.305. *Prerequisite:* 37.305 or equivalent.

37.111 Vietnamese, Elementary I (4)

Emphasis on audio-lingual skills. Drills on Vietnamese structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.112 Vietnamese, Elementary II (4)

Continuation of 37.111. *Prerequisite:* 37.11 or equivalent.

37.211 Vietnamese, Intermediate I.

Emphasis on further development of audio-lingual skills and on Vietnamese structure, of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* 37.112 or equivalent.

37.212 Vietnamese, Intermediate II.

Continuation of 37.211. *Prerequisite:* 37.211 or equivalent.

Prerequisite for admission to all advanced courses: permission of the instructor unless otherwise specified.

37.500 Principles of Linguistics I (3)

Introduction to the scientific study of language, with emphasis on structural linguistics. Attitudes of the linguistic scientist. Reading, problems, and class discussions.

37.501 Principles of Linguistics II (3)

Introduction to the study of language change, classification of languages, and linguistic reconstruction. Readings, problems, and class discussions.

37.502 Linguistic Structure I: Phonetics and Phonemics (3)

Phonetics and phonemics. Techniques of describing speech sounds in terms of articulatory movements and formulas. Practice in hearing and transcribing phonetic sounds, using tape recordings. Basic premises underlying phonemic analysis and practical procedures for arriving at the phonemes of a language.

37.503 Linguistic Structure II: Morphology and Syntax (3)

Morphology and syntax. Identification of morphemes; morphophonemics; morpheme classes and distribution; problems in the classification and description of morphological data. Componential analysis of utterances; form classes; immediate constituents.

37.505 History of Linguistics (3)

Linguistic theories from the Greeks to modern times. Great linguists and their schools of thought. Development of American linguistics.

37.507 Applied Linguistics: Methodology of Foreign Language Teaching (3)

Principles underlying the structural method of language teaching. Application of linguistics in the preparation of teaching materials. Planning of courses. Audio-visual aids.

37.508 Teaching English as a Foreign Language (3)

Methods of teaching English as a foreign language; development of teaching materials; discussion of textbooks; lesson planning; problems of the foreign student. Portion devoted to practical work; writing materials and presenting them orally for class critique.

37.509 Theory and Construction of Grammars (3)

Emphasis is on the construction of grammars as defining devices to characterize languages. Automata equivalent to various types of grammars are considered, as well as mathematical relations among grammars. Types of languages considered are mathematical, logical, computational and two-dimensional, in addition to natural language.

37.520 French Structure (3)

A contemporary and historical analysis of the phonology, morphology and syntax of French.

37.521 History of the French Language (3)

Study of the French language through various stages of its development.

37.522 French Stylistics (3)

Word choice and word grouping. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.523 French Romanticism (3)

Development of the Romantic movement in early 19th century French literature. Analysis of sentiments of the romanticists.

37.524 French Realism (3)

19th century French literature from decline of romanticism to turn of century. Periods of expression known as realism, naturalism, and symbolism.

37.525 Contemporary French Literature (3)

Course content changes each semester; emphasis on (a) Novel, or (b) Drama, or (c) Poetry. Course may be taken for credit more than once.

37.526 The French Renaissance (3)

Renaissance and humanistic movement in France in the 16th century. Rabelais, the *Pleiade*, Ronsard, Montaigne.

37.527 Eighteenth Century France: Men and Ideas (3)

Attitudes and ideas of the age of enlightenment as reflected in Montesquieu, Diderot, the Encyclopedists, Voltaire, and Rousseau.

37.530 German Structure and Problems in Teaching German (3)

Problems in a descriptive analysis of the German structure, and the impact of new linguistic findings on the practice of teaching German.

37.531 History of the German Language (3)

Historic development of the German language. Scholarly methods applied in diachronic linguistics.

37.532 German Stylistics (3)

Style in general and German style features in particular. To familiarize the student in theory with what constitutes style levels in non-artistic usage and also to make him recognize the elements of style in literary works of art.

37.533 Topics, Motifs and Conventions in German Literature (3)

Understanding and application of modern theoretical aspects reflecting present day thinking in German literary criticism.

37.535 German Literature in the Middle Ages (3)

Medieval literature in Germany from approximately 900 to 1400 A.D. Covers a period vital to the understanding of German intellectual development.

37.536 German Literature of the 17th and 18th Century (3)

Content alternates between (a) Barock period, and (b) Lessing and his time. Course may be taken for credit twice.

37.537 Classical Period in German Literature (3)

Content alternates between (a) Goethe and his time, and (b) Schiller and his time. Course may be taken for credit twice.

37.538 Nineteenth Century German Literature (3)

From Romanticism to Realism and subsequent developments to the beginning of World War I. Selected representatives such as Heine, Keller, Storm, Stifter, Fontane, the Naturalists.

37.539 Contemporary German Literature (3)

Content changes each semester; emphasis on (a) Novel, or (b) Drama, or (c) Poetry. Course may be taken for credit more than once.

37.540 Russian Structure (3)

Contemporary and historical analysis of the phonology, morphology, and syntax of Russian.

37.541 History of the Russian Language (3)

Russian language through various stages of its development.

37.542 Russian Stylistics (3)

Word choice and word grouping. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.543 Russian Classics (3)

Content changes each semester; emphasis on life and works of one major writer of the 19th century. Course may be taken for credit more than once.

37.544 Soviet Literature (3)

Content changes each semester; emphasis on one major genre or period of Soviet literature. Course may be taken for credit more than once.

37.545 Russian Drama (3)

Content changes each semester; emphasis on a major period or works of one outstanding Russian playwright. Course may be taken for credit more than once.

37.546 Russian Poetry (3)

Content changes each semester; emphasis on a major period or works of one outstanding Russian poet. Course may be taken for credit more than once.

37.550 Spanish Structure (3)

Contemporary and historical analysis of the phonology, morphology, and syntax of Spanish. In English.

37.551 History of the Spanish Language (3)

Spanish language through various stages of its development in Europe and America.

37.552 Spanish Stylistics (3)

Word choice and word grouping. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.553 Spanish Classics (3)

Content changes each semester; emphasis on a period of Spanish literature from the Medieval Epic to the generation of 1898. Course may be taken for credit more than once.

37.554 Classics of Latin American Literature (3)

Content changes each semester; emphasis on a period of Spanish American literature from the Colonial era to the present time. Course may be taken for credit more than once.

37.555 Spanish Literature After the Civil War (3)

Content changes each semester; emphasis on a major contemporary writer. Course may be taken for credit more than once.

37.556 Twentieth Century Latin American Novel (3)

Content changes each semester; emphasis on a major contemporary novelist. Course may be taken for credit more than once.

37.595 Linguistic Introduction to Sanskrit I (3)*

Primary stress on learning the linguistic structure of Sanskrit and on developing reading skill. The position of Sanskrit within the Indo-European family of languages. Historical development of Sanskrit.

37.596 Linguistic Introduction to Sanskrit II (3)

Continuation of 37.595.

37.600 Linguistic Structure III: Theories of Syntax (3)

Schools of syntactic analysis. Introduction to phrase structure, dependency theory and transformations (Chomsky-school). Comparison of these types of analysis with one another and with IC analysis and transformations (Harris-school).

37.605 Semantics (3)

History of semantic theory. Semantic changes, reflecting cultural change. Ambiguity of meaning. Metaphors, Synonymy. Etymologies. World-field theory. Structural semantics versus historical semantics.

37.610 Teaching Fellow Seminar (1)

A graduate workshop dealing with practical problems of foreign language teaching and limited to graduate teaching fellows (assistants).

37.700 Visiting Scholar's Seminar (3)

Seminar with flexible content pertaining to one or more selected topics in foreign literatures and linguistics. May be taken for credit more than once.

37.702 Seminar in French Literature (3)

Reports and critical discussion of research papers on French literature. Different content Fall and Spring. Course may be taken for credit more than once.

37.703 Seminar in German Literature (3)

Reports and critical discussion of research papers on German literature. Different content Fall and Spring. Course may be taken for credit more than once.

37.704 Seminar in Russian Literature (3)

Reports and critical discussion of research papers on Russian Literature. Different content Fall and Spring. Course may be taken for credit more than once.

37.705 Seminar in Spanish and Latin-American Literature (3)

Reports and critical discussion of research papers on Spanish and Latin-American literature. Different content Fall and Spring. Course may be taken for credit more than once.

37.710 Seminar in Linguistics (3)

Reports and critical discussions on various theoretical and practical problems in the scientific study of language, methodology in linguistic research, and other pertinent linguistic subjects. Different content Fall and Spring. Course may be taken for credit more than once.

37.797 Master's Thesis Seminar (3-6)**75.523 Colloquium on France (3)**

Lectures, reports and critical discussions on selected topics pertaining to France's current role in international politics, cultural trends; economic problems. In French. Course may be taken for credit more than once. *Prerequisite:* three years college French or equivalent.

75.533 Colloquium on Germany (3)

Lectures, reports and critical discussions on selected topics pertaining to Germany's current role in international politics; cultural trends; economic problems. In German. Course may be taken for credit more than once. *Prerequisite:* three years college German or equivalent.

75.543 Colloquium on Soviet Union (3)

Lectures, reports and critical discussions on Soviet political system; Russia and USSR: Continuity and change; Communist semantics as a propaganda means; cultural scene. In Russian. Course may be taken for credit more than once. *Prerequisite:* three years college Russian or equivalent.

75.553 Colloquium on Latin America (3)

Lectures, reports and critical discussions on peoples and governments of Latin America; cultural trends; political and economic problems; international relations. In Spanish. Course may be taken for credit more than once. *Prerequisite:* three years college Spanish or equivalent.

Latin America—(See Language and Area Studies)**Law Enforcement Administration****Police, Correction, and Public Safety Administration**

The following courses are maintained for use in off-campus programs, as required for specially stated student program patterns:

- 73.100 Backgrounds of Police Work (3)**
- 73.110 Introduction to Law Enforcement (3)**
- 73.210 Police Administration I (3)**
- 73.211 Corrections Administration (3)**
- 73.212 Fire Administration (3)**
- 73.310 Police Administration II (3)**
- 73.320 Police Investigation (3)**
- 73.321 Accident Investigation (3)**
- 73.330 Traffic Planning, Regulation, and Control (3)**
- 73.340 Criminal Law I (3)**
- 73.341 Criminal Law II (3)**
- 73.342 Evidence (3)**
- 73.350 Criminalistics (3)**
- 73.360 Police and the Juvenile (3)**
- 73.410 Special Problems (3)**
- 73.440 Civil Rights and Civil Liberties in Law Enforcement (3)**
- 73.450 Problems in Criminalistics (3)**

Complete descriptions and numbers of these are available from the College of Continuing Education, in particular the Center for the Administration of Justice, McKinley Bldg.

Linguistics—(See Languages and Linguistics)

Logistics—(See Business Administration)

Management Development Programs—(See Business Administration)

Management Information Systems—(See Technology of Management)

Managerial (Business) Economics—(See Business Administration)

Manpower Management—(See Business Administration)

Marketing—(See Business Administration)

Mathematics and Statistics

Mathematics

Courses marked with an asterisk will not be available on campus Summer and Fall 1969.

41.100 Survey of Mathematics I (3)

Sets and logic; counting; powers and sequences; probability; linear equations. *Prerequisite:* two years of high school mathematics. Not intended for science majors or others planning to take Calculus.

41.101 Survey of Mathematics II (3)

Systems of linear equations and matrices; linear transformations; linear programming; properties of functions. *Prerequisite:* 41.100.

41.105-106 The Nature of Mathematics I, II (3, 3)

Interplay of mathematics with the natural, social, and physical sciences and the humanities. *Prerequisite:* permission of the department.

41.110 Fundamentals of Mathematics (3)

Mathematical logic; number systems; polynomials; algebraic fractions; exponents and radicals; sets; equations; inequalities; trigonometry; functions and relations; algebraic functions. Primarily for science majors and those intending to take Calculus. *Prerequisite:* Three years high school mathematics or 41.100. No credit for both 41.101 and 41.110. Intended primarily for science majors and others planning to take Calculus.

41.111 Analytic Geometry and Introduction to Calculus (3)

Straight line equations; limit processes; differentiation of polynomials. *Prerequisite:* 41.110 or four years of high school mathematics.

41.222 Differential and Integral Calculus I (4)

Differentiation of algebraic and transcendental functions with applications; antidifferentiation; fundamental theorem; theorem of mean value. *Prerequisite:* 41.111 or five years of high school mathematics including analytic geometry and some calculus.

41.223 Differential and Integral Calculus II (4)

Techniques of integration; conic sections; polar coordinates and parametric equations; improper integrals; indeterminate forms; vector functions in two and three dimensions; partial differentiation; multiple integration; infinite series. *Prerequisite:* 41.222.

41.310 Linear Algebra (3)

Vector spaces, systems of linear equations, solutions by matrices, determinants, linear transformations, algebraic forms. *Prerequisite:* 41.222 or to be taken concurrently with 41.222.

41.312 Abstract Algebra (3)

Sets; groups, rings, integral domains; fields; polynomial rings. *Prerequisite:* 41.223 or 41.222 and permission of department.

41.321 Differential Equations (3)

First-order first-degree equations, linear equations of n th order with constant coefficients, Laplace transforms, applications to mechanics and electrical circuits, special equations of higher order, solution in series. *Prerequisite:* 41.223.

41.322 Intermediate Calculus (3)

Functions of several variables. Mappings and Jacobians. Implicit function and inversion theorems. Lagrange multipliers. Quadratic forms. Gamma function. Line integrals. Green's, Gauss', and Stokes' theorems. *Prerequisite:* 41.223.

41.440 Modern Geometry (3)

Applications of linear algebra to analytic geometry; linear mappings, Euclidean and unitary vector spaces; geometry of quadric surfaces; reduction of quadratic forms. *Prerequisite:* 41.310.

41.474 Probability (3)

Algebra of sets; probability in discrete sample spaces; combinatorial analysis; random variables; binomial, Poisson, normal and other distributions; applications. *Prerequisite:* 44.223.

41.480 History of Mathematics (1)

Individual topics in the history of mathematics since Newton and Leibniz. *Prerequisite:* permission of the department.

FOUNDATIONS AND ALGEBRA**41.502 Foundations of Mathematics I (3)**

Modern developments in mathematics including elementary symbolic logic, truth tables, axiomatics, foundations of geometry, introduction to set theory, transfinite numbers. *Prerequisites:* 41.322 and further work or teaching experience in mathematics.

41.503 Foundations of Mathematics II (3)

Continuation of 41.502. Peano's axioms, Dedekind cuts, the real and complex number systems, functions, homeomorphism and topological concepts, groups, rings, fields and other algebraic systems. *Prerequisite:* 41.502 or equivalent.

41.510 Matrix Theory for Applications (3)

Vector spaces, linear transformations, similarity, rational and classical canonical forms, unitary spaces, unitary equivalence, quadratic forms, congruence, rings of matrices, matrix representations of groups and algebras, applications to statistics physics and other fields. Not intended for graduate students in Mathematics. *Prerequisite:* 41.310.

41.512-41.513 Modern Algebra I and II (3, 3)

Selected topics from Group theory: Isomorphism theorems, Sylow theorems, classification of groups, solvable and nilpotent groups, p -groups, direct products, free groups, extensions. Ring theory: Ideal theory in commutative rings, factorization theory, Noetherian and Artinian rings, Wedderburn-Artin theorem, Jacobson radical, algebras. Field theory: Extensions, Galois theory, Kummer theory, valuations, Dedekind fields, algebraic number theory. *Prerequisite:* 41.312.

41.515 Number Theory (3)*

Divisibility; sequences of primes, fundamental theorem of arithmetic, congruences; totient; Euler's theorem; Wilson's theorem; congruences, diophantine equations; primitive roots; quadratic residues; Jacobi symbol; quadratic reciprocity; number theoretic functions; Mobius inversion formula, multiplicative functions; sums of squares; partitions. *Prerequisite:* 41.223.

41.518 Linear Programming (3)

Theoretical, computational, and applied aspects of linear programming. Simplex, revised simplex, transportation algorithms; duality, parametric programming; theory of games and management programs, applications. *Prerequisite:* 41.310.

41.519 Advanced Topics in Mathematical Programming (3)

Revised simplex method, parametric programming, solution of large-scale systems, decomposition algorithm, network analysis, integer programming, non-linear programming, stochastic programming, dynamic programming. *Prerequisites:* 41.518.

41.576 Mathematical Methods of Operations Research (3)*

Short review of probability theory, Laplace and Z-transforms as used in probability theory. Stochastic processes and their use in industrial problems. Queueing theory, birth-death processes, other models where interarrival or service-time distributions are non-exponential, Inventory theory; linear and dynamic programming under uncertainty. *Prerequisites:* 41.310 and 41.474.

41.610 Advanced Linear Algebra (3)

Matrix theory, introduction to multilinear algebra, tensor products, orthogonal spaces, classical groups, algebras, projective geometry, infinite dimensional spaces. *Prerequisites:* 41.310 and 41.312.

41.616 Homological Algebra (3)

Homology, cohomology, homological dimension, Ext and Tor, spectral sequences, category theory. *Prerequisite:* 41.513.

41.710 Selected Topics in Algebra (3)

Topics selected from: field theory; theory of rings and algebras; algebraic number theory; theory of quadratic forms; lattice theory; homological algebra; representations of groups and algebras; Lie algebra and groups; nonassociative algebras, topological algebra. *Prerequisite:* 41.512.

ANALYSIS, GEOMETRY, AND TOPOLOGY**41.520-521 Introduction to Analysis I, II (3, 3)**

Number systems, topology of Euclidean and metric spaces, continuous and differentiable functions, the Riemann-Stieltjes integral, sequences of functions, differentiability in several variables, normed vector spaces. *Prerequisites:* 41.322, 41.520.

41.523 Ordinary Differential Equations (3)

Existence theorems, Riccati equation. Solutions in power series, regular and irregular singular points, two-point boundary-value problems, Sturm-Liouville theory, orthogonal functions. *Prerequisite:* 41.321.

41.524 Partial Differential Equations (3)

First and second order linear equations, type, characteristics, reduction to normal forms, separation of variables, Poisson's formula, Green's function. *Prerequisite:* 41.523.

41.525 Special Functions (3)*

Fundamental properties of Gamma and Bessel functions, Legendre, Hermite, Laguerre, and Chebyshev polynomials; hypergeometric functions; asymptotic expansion; determination of zeros. *Prerequisite:* 41.521.

41.528 Vector and Tensor Analysis (3)*

Algebra and calculus of vectors, theorems of Green, Gauss, and Stokes. Riemannian geometry; contravariant, covariant, and mixed tensors, Christoffel symbols, Gaussian curvature. Applications. *Prerequisite:* 41.321.

41.546 Point-Set Topology (3)*

Topological spaces, open and closed sets, compactness, connectivity, metric—, Hausdorff—, and linear normed-spaces, topological transformations, separation theorems. *Prerequisite:* 41.520.

41.570 Complex Variables for Applications (3)

Selected topics in complex variables; integrals of analytic functions; uniform convergence; power series; singularities; residues and contour integration. Not open to graduate students in mathematics. Fall. *Prerequisite:* 41.322.

41.571 Analysis for Statistics (3)

Point sets; measurable sets and functions; Lebesgue integrals; differentiation and integration; interchange of order; Lebesgue-Stieltjes integrals; dominated convergence. Spring. Not open to graduate students in mathematics. *Prerequisite:* 41.322.

41.620 Complex Variables I (3)*

Topological concepts, differentiation and integration of complex-valued functions, analyticity, Cauchy's theorem, Laurent series, singularities, contour integration and residue calculus. *Prerequisite:* 41.521.

41.621 Complex Variables II (3)*

Analytic continuation, entire functions, conformal mapping, Riemann surfaces, periodic and elliptic functions, Riemann mapping theorem. *Prerequisite:* 41.620.

41.622-41.623 Real Variables I and II (3, 3)

Theory of measure and integration. Measurable sets; Lebesgue measure; measure spaces; measurable functions; integration; convergence theorems; L_p spaces, Daniell integration; topics selected from introductory probability, Hilbert space, Banach space. *Prerequisite:* 41.521.

41.625 Calculus of Variations (3)*

Extremization of functionals. Euler, Legendre, Weierstrass and Jacobi necessary conditions. Sufficient conditions for weak and strong extrema. Extremal fields and Hilbert's invariant integral. Isoperimetric problems and inequalities. Direct methods. *Prerequisite:* 41.521.

41.626 Integral Equations (3)*

Fredholm equations and theorems. Neumann series, resolvent, degenerate kernels. Hilbert-Schmidt theory, symmetric kernels, eigenfunction expansions, properties and estimation of eigenvalues. Application to boundary value problems. Singular integral equations. *Prerequisite:* 41.521.

41.634 Functional Analysis (3)*

Topological vector spaces, Banach spaces, linear functional and dual space, W^* -topology, uniform boundedness and closed graph theorems, completely continuous operators, Hilbert space, spectral theorem, unbounded operators. *Prerequisites:* 41.310 and 41.623.

NUMERICAL ANALYSIS

41.560 Numerical Analysis I: Basic Problems (3)*

Interpolation, finite differences, numerical differentiation, integration, and approximation by orthogonal functions, least squares, asymptotic representations, difference equations, continued fractions, planning tables, optimum interval tables, differencing. *Prerequisite:* 41.223.

41.561 Numerical Analysis II: Matrices (3)*

Calculation of inverses of matrices by various methods, iterative processes for solving systems of simultaneous linear equations, and determination of eigenvalues and eigenvectors of matrices. *Prerequisite:* 41.510.

41.562 Numerical Analysis III: Ordinary Differential Equations (3)

Numerical solution of ordinary differential equations of initial value and boundary value types. Picard's method. Runge-Kutta and other methods. Error analysis, stability, rates of convergence. Rayleigh-Ritz method. *Prerequisites:* 41.560 and 41.321.

41.563 Numerical Analysis IV: Partial Differential Equations (3)

Finite difference methods for elliptic and parabolic equations. Matrix iterative analysis, overrelaxation. Approximation of operators and monotony theorems. Error analysis, stability, and rates of convergence. Characteristic methods for hyperbolic equations. *Prerequisite:* 41.560.

MATHEMATICAL PHYSICS

41.550 Mathematics for Physics I (3)

Fourier series, integrals and transforms, Laplace transform methods, eigenvalues and diagonalization of matrices, oscillatory systems and normal modes, calculus of variations, special functions. *Prerequisite:* 41.321.

41.551 Mathematics for Physics II (3)

Wave equation, vibrating strings and membranes, Laplace's equation, heat equation, complex variables and contour integration, conformal mapping, tensors. *Prerequisite:* 41.550.

41.654 Partial Differential Equations of Mathematical Physics I (3)

Second order hyperbolic equations, characteristics, Cauchy and Goursat problems, Riemann's method, quasi-linear equations. Legendre transformation, wave equation in n -dimensions, spherical means, Hadamard's method. *Prerequisites:* 41.524 and 41.551.

41.655 Partial Differential Equations of Mathematical Physics II (3)

Second order elliptic, parabolic, and mixed equations, vorticity and circulation theorems, potential and stream function, plane and axially symmetric flows, conformal mapping, aerofoils, vortex lines and streets, jets and free streamline problems. *Prerequisite:* 41.654.

41.656 Mathematical Theory of Fluid Dynamics I (3)

Basic kinematic and dynamics concepts, incompressible fluids, vorticity and circulation theorems, potential and stream function, plane and axially symmetric flows, conformal mapping, aerofoils, vortex lines and streets, jets and free streamline problems. *Prerequisite:* 41.551.

41.657 Mathematical Theory of Fluid Dynamics II (3)

Dynamics and thermodynamics of compressible fluids, subsonic, transonic, and supersonic flows, Prandtl-Busemann method, hodograph method, shock waves, viscous fluids, boundary layer theory, and turbulence. *Prerequisite:* 41.656.

SEMINARS**41.720 Seminar: Analysis (3)**

Research in analysis, involving individual projects. *Prerequisite:* 41.621 or 41.623.

41.750 Seminar: Applied Mathematics (3)

Research in applied mathematics, involving individual projects. *Prerequisite:* 41.551.

69.790 Seminar in Statistical Theory and Probability (3)

Advanced topics will be considered according to the needs of the students. *Prerequisites:* 69.600-601 and another 600-level sequence.

41.797 Master's Thesis Seminar in Mathematics and Statistics (3-6)**41.799 Doctoral Dissertation Seminar in Mathematics and Statistics (6-12)****Statistics****69.202 Basic Statistics (3)**

Classification of data, averages, dispersion, probability, frequency distributions, confidence intervals, tests of significance, simple regression and correlation. *Prerequisite:* 41.100.

69.300 Business Statistics (3)

Estimation, inference, multiple regression and correlation, index numbers, secular trend, seasonal and cyclical variations. *Prerequisite:* 69.202.

69.301 Psychological Statistics (3)

Estimation, inference, special methods of two-variable correlation, multiple regression and correlation, design of samples and experiments, contingency tables. *Prerequisite:* 69.202.

69.400 Managerial Statistics (3)

Survey of first-year statistics (see 69.202 and 69.300); required for MBA candidates entering without 6 hours of statistics. *Prerequisite:* 41.100.

69.484 Introduction to Mathematical Statistics (3)

Probability distributions, introduction to sampling, sampling distributions, and the theory of point estimation and statistical inference including tests of hypotheses and confidence intervals. *Prerequisites:* 41.474 or 69.202 and 41.322.

THEORY OF PROBABILITY AND STATISTICS**41.574-575 Theory of Probability I and II (3, 3)**

Foundations of the theory of probability; random variables; distribution functions; generating and charac-

teristic functions; special distributions and statistics; limit theorems; Markov chains; introduction to stochastic processes. Fall, Spring. *Prerequisite:* 41.474, corequisite 41.570.

69.500-69.501 Mathematical Statistics I and II (3, 3)

Probability concepts; discrete and continuous distributions; expected values and moments; sampling, point estimators, desirable properties; maximum likelihood; linear estimation, regression, and variance analysis; interval estimation and significance tests. Fall, Spring. *Prerequisites:* 41.322 and 41.474, corequisite 41.310.

69.510-69.511 Theory of Sampling I and II (3, 3)*

Mathematical development of basic principles of survey design including methods for determining expected value, bias, variance and mean square error; simple random, systematic, stratified, cluster, multi-stage, and double sampling; unbiased, ratio, regression, and composite estimation; optimum allocation of resources; controlled and other non-simple methods of selection; introduction to measurement error; comparison of alternative designs. *Prerequisites:* 41.223, corequisite 69.500.

69.600-601 Advanced Mathematical Statistics I and II (3, 3)

General theory of random variables and probability distributions; theory of estimation and testing hypotheses, sufficiency, minimum variance, least squares; Bayesian, sequential, and non-parametric procedures; multivariate normal distribution. *Prerequisites:* 69.501, 41.571; 41.574 (may be taken concurrently).

69.604-605 Statistical Decision Theory I and II (3, 3)

Convex sets and functions; minimax theorem; statistical games; utility and principles of choice; strategies; complete classes; Bayes procedures; principles of invariance; sequential procedures; related topics. 1969-70 and every third year. *Prerequisites:* 41.571; 69.600 (may be taken concurrently).

69.610-611 Statistical Inference I and II (3, 3)

Advanced topics in the theory of estimation and testing hypotheses. *Prerequisites:* 41.575; 69.600 (may be taken concurrently).

69.620-621 Multivariate Analysis I and II (3, 3)*

Multivariate normal distribution Hotelling's T ; Wilks' likelihood ratio criterion; other test statistics; classification problems; principal components; canonical correlation; general multivariate regression and experimental designs; related topics. 1970-71 and alternate years. *Prerequisites:* 41.510, 41.575, and 69.501.

69.670-671 Linear Estimation I and II (3, 3)

General linear hypothesis; least squares estimation; Gauss-Markov theorem; regression; analysis of variance; multiple comparisons; analysis of covariance; factorial designs; randomized blocks; other experimental designs; effects of departures from assumptions. 1969-70 and alternative years. *Prerequisites:* 69.501, 41.310, and additional work in matrix algebra.

69.678-679 Stochastic Processes I and II (3, 3)*

Distributions, generating functions; random walks; Markov chains; branching processes; Poisson processes; queueing theory; birth and death processes; normal processes; covariance processes; related topics. 1968-69 and every third year. *Prerequisites:* 41.570, 41.575, and 69.501.

69.690 Research Project (3)

For registration procedure see the section of the catalog on reading, research, and independent study courses.

STATISTICAL METHODOLOGY COURSES

69.514 Methodology I: General (3)

Averages, dispersion, probability, sampling, approach to normality; simple and multiple regression; tests and confidence intervals for means, proportions, differences, regression coefficients; nonparametric statistics; analysis of variance. *Prerequisite:* 69.202.

69.515 Methodology II: Regression (3)

Simple and multiple regression; least squares; curve fitting; graphic techniques; tests and confidence intervals for regression coefficients. *Prerequisite:* 69.514.

69.516 Methodology III: Design of Experiments (3)

Designing and analyzing results of balanced experiments; simple analysis of variance; components of variance; analysis of covariance; related topics. *Prerequisite:* 69.514.

69.517 Methodology IV: Sampling (3)*

Sampling principles; stratification; alternative methods of selection and estimation; comparisons of accuracy, precision, and cost. Applications; auditing, acceptance inspection, market research, personnel administration. *Prerequisite:* 69.514.

69.518 Methodology V: Psychological Statistics (3)

Methods appropriate for analyzing data of psychological research; validity and reliability; regression; analysis of variance and covariance; interval estimates and significance tests; related topics. *Prerequisite:* 69.301 or 69.514.

Medical Technology—(See Separate Requirements Available on Request from Biology Department)

Middle East and North Africa—(See International Studies)

Music

HISTORY AND LITERATURE

43.100 Fundamentals of Music (3)*

Development of listening techniques based on an understanding of the functional role of the elements in the organization of music.

43.101 Survey of Musical Styles (3)

Representative compositions and composers from the Middle Ages to the Twentieth Century, compared and evaluated within an historical and cultural context. *Prerequisite:* 43.100.

43.102 Orchestral Music (3)

Development of the orchestra and its music from the late Sixteenth Century to the present including consideration of form, style and instrumental color. *Prerequisite:* 43.100.

43.103 The Evolution of Jazz (3)

Cultural sources and the growth of divergent stylistic characteristics of Jazz through the past one hundred years.

43.300 History of Music I (3)

Development of music in Western civilization from the modal structures of the Greeks to the Baroque Era. *Prerequisite:* 43.205 or permission of instructor.

43.301 History of Music II (3)

Development of music in Western civilization from the Baroque Era to the present day. *Prerequisite:* 43.300.

THEORY

43.104 Theory I (4)

Comprehensive study of scales, modes, rhythm, instruments, and notational practices from the Middle Ages to the present. Basic general concepts of rhythm, melody, harmony, counterpoint, and form studied in the context of developing ear and sight reading proficiency.

43.105 Theory II (4)

Line, rhythm, notation, form and vertical relationships as practiced in Medieval Music. Literature and style analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.104.

43.204 Theory III (4)

Study of 15th and 16th Century style and theory by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.105.

43.205 Theory IV (4)

Baroque style and theory, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.204.

43.304 Theory V (4)

Music of the Classic and Romantic Periods studied by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.205.

43.305 Theory VI (4)

Diverse styles and theoretical attitudes of the Twentieth Century, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.304.

43.306 Conducting I (2)

Practical study of basic conducting technique; emphasis on choral conducting. *Prerequisite:* 43.205 or permission of instructor.

43.307 Conducting II (2)

Orchestral and band conducting; score reading and interpretation. *Prerequisite:* 43.306.

43.311 Orchestration (2)

Scoring for various chamber ensembles and full orchestra. Analysis of orchestration practice of master composers from classic era to present. *Prerequisite:* Music majors with sophomore standing.

43.312 Keyboard Harmony I (2)

Keyboard practice of chord progressions in four parts; cadence patterns; simple melodic harmonization; harmonic sequences. *Prerequisite:* 43.205 or permission of instructor.

43.313 Keyboard Harmony II (2)

Continuation of 43.312; modulation and transposition; special projects for individual needs. *Prerequisite:* 43.312.

43.315 Composition I (3)

Individually supervised practice in writing short compositions in specified small forms. *Prerequisite:* 43.205.

43.316 Composition II (3)

Continuation of 43.315; assignments adapted to individual needs and talents of students. *Prerequisite:* 43.315.

MUSIC EDUCATION**43.140 Introduction to Music Education (3)**

History and philosophy of music education in the school, the college, the private studio, and the community. Scope and sequence of music instruction in the light of current aesthetic and learning theory. *Prerequisite:* sophomore standing.

43.353 Music for Elementary School Teachers (3)

Technical background and methods of presentation for the elementary classroom teacher to use in teaching music. Primarily for elementary education majors; students majoring in music may not include this course as credit toward a degree. *Prerequisite:* 43.100 or the equivalent.

43.360 Instrumental Music: Methods and Materials (3)

Preparation for student-teaching experience through the study of classroom management; materials and methods of presentation based on current learning theory. *Prerequisite:* 43.140.

43.361 Vocal Music in the Elementary School: Methods and Materials (3)

Principles, procedures and materials for the general music program in the elementary school. *Prerequisite:* 43.140.

43.362 Vocal Music in the Secondary School: Methods and Materials (3)

Principles, procedures and materials for the general and choral music program in secondary schools. *Prerequisite:* 43.140.

APPLIED MUSIC**43.113 Class Guitar I (1)**

Beginning study of classic guitar in preparation for private study.

43.114 Class Guitar II (1)

Continuation of Class Guitar I. *Prerequisite:* 43.113 or audition.

43.115 Class Piano I (1)

Beginning piano study directed toward satisfaction of the Department's minimal piano requirements.

43.116 Class Piano II (1)

Continuation of basic piano skills begun in Class Piano I, necessary for entrance into 43.312 Keyboard Harmony, and private piano study. *Prerequisite:* 43.115.

43.117 Class Voice I (1)

Beginning voice study directed toward satisfaction of the minimal voice requirements in Music Education.

43.118 Class Voice II (1)

Application of basic principles of correct use of the singing voice to the study of good song literature. *Prerequisite:* 43.117.

43.149 Class Instrumental Study: Brass (1)

Beginning study of one pre-selected brass instrument (trumpet, trombone, French horn, tuba), embodying fundamentals of embouchure, fingering, breathing, and principles of pedagogy relating to brass instrumental methods and materials. May be repeated for credit on another instrument. Open to all students. *Prerequisite:* 43.100 or the equivalent.

43.150 Class Instrumental Study: Strings (1)

Beginning study of one pre-selected bowed string instrument (violin, violincello, contrabass); techniques, methods, and materials. May be repeated for credit on another instrument. Open to all students. *Prerequisite:* 43.100 or the equivalent.

43.151 Class Instrumental Study: Woodwinds (1)

Beginning study of one pre-selected woodwind instrument (flute, oboe, clarinet, bassoon); techniques, methods, and materials. May be repeated for credit on another instrument. Open to all students. *Prerequisite:* 43.100 or the equivalent.

43.152 University Chorale (2 credit hours per year)

Prepares and presents major works of choral literature. *Prerequisite:* audition.

43.153 University Singers (3 credit hours per year)

A small, highly select traveling choral ensemble which presents both sacred and secular programs. *Prerequisite:* audition.

43.154 University Orchestra (1)

Concerts, sight-reading, study of selected compositions. Open to all students, faculty, and staff. *Prerequisite:* permission of instructor.

43.155 Instrumental Ensemble (1)

Symphonic band, brass ensemble, stage band, jazz ensemble, string quartets, woodwind quintets, miscellaneous ensembles. Open to all students, faculty, and staff. *Prerequisite:* permission of instructor.

APPLIED MUSIC (PRIVATE STUDY)

All undergraduate courses in Applied Music may be repeated for credit. Fees are in addition to tuition. For regulations regarding Applied Music (levels of achievement, juries, attendance at recitals, etc.), see the departmental *Applied Music Handbook*. Enrollment in all courses listed under Applied Music must be approved by the Department. The student is required to show written permission at registration.

44.121 Private Instrumental or Vocal Study (1)

Limited to students not majoring in music or music majors on secondary instruments. *Prerequisite:* 43.114 for guitar, 43.116 for piano, 43.118 for voice, 43.149 for brass instruments, 43.150 for bowed string instruments, 43.151 for woodwind instruments; or the equivalent. Fee, \$50.

44.122 Private Instrumental or Vocal Study (2)

Limited to students not majoring in music. *Prerequisite:* see 44.121. Fee, \$100.

44.131 Private Instrumental or Vocal Study (1)

Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$30.

44.132 Private Instrumental or Vocal Study (2)

Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$60.

44.334 Private Instrumental or Vocal Study (4)

Enrollment limited. Recital required. *Prerequisite:* audition and permission of Department Chairman. Fee, \$60.

44.434 Private Instrumental or Vocal Study (4)

Enrollment limited. Recital required. *Prerequisite:* audition and permission of Department Chairman. Fee, \$60.

HISTORY AND LITERATURE**43.500 Music of The Baroque Era (3)**

Emergence and development of vocal and instrumental musical styles and techniques from Monteverdi to Bach and Handel; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.301 or concurrent registration.

43.501 Music of The Classic Era (3)

Growth of new musical forms and ideas from the pre-classicists to Haydn, Mozart and Beethoven; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.301 or concurrent registration.

43.502 Music of The Romantic Period (3)

Historical and cultural background; intensive study of the composers and works of the period; emphasis on individual styles; nationalism, program music. *Prerequisite:* 43.301.

43.503 Music of the Twentieth Century (3)

Survey of contrasting musical ideas and attitudes from 1900 to the present, with emphasis on the styles of selected major composers; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.301.

43.504 Studies in Music Literature (3)

Survey of a pre-selected area, such as chamber music, orchestral music, keyboard music, choral music, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.505 Studies in Music History (3)

History of a pre-selected area, such as opera, music theory, musical instruments, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.510 Introduction to Musicology (3)

Bibliographical studies; transcription of early notations; preparation of papers for written or oral presentation. *Prerequisite:* 43.301.

43.555 Collegium Musicum (1)

Preparation and performance of vocal and instrumental music, mainly for various small ensembles, with emphasis on music before 1750; use of departmental collection of replicas of early instruments (lute, viol, sackbut, cromorne, recorders, cornetti, harpsichords). Graduate students are expected to edit music for performance and/or direct ensembles, as well as perform. *Prerequisite:* permission of instructor.

43.570 Music in Worship (3)

Historical survey of music on both fixed and free liturgies. *Prerequisite:* 43.301.

43.670 Seminar in Church Music (3)

Studies in pre-selected areas of church music. May be repeated for credit if no duplication is involved. *Prerequisite:* 43.570 or concurrent registration.

43.680 Medieval Music (3)

Advanced study of music in the Middle Ages with special attention to origin and development of music forms, illustrated by recordings; taped listening assignments. *Prerequisite:* 43.301.

43.701 Renaissance Music (3)

Intensive study of form, style, techniques, and musical thought of the period; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.680 or permission of instructor.

43.702 Musicology Seminar (3)

Advanced study in pre-selected areas, such as notation, performance practices, the Italian madrigal, etc. May be repeated for credit if no duplication is involved. *Prerequisite:* six hours of advanced history and literature courses, including 43.510.

43.797 Master's Thesis Seminar (3-6)

Prerequisite: 43.703 for Composition majors; 43.540 for Music Education majors (instrumental or vocal); 43.510 for all other students; plus permission of Department Chairman.

THEORY**43.507 Studies in Music Theory (3)**

Studies in depth in specific areas of theoretical concern, such as Fugue; chance vs. control as compositional principles; and, techniques of variation. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.305.

43.515 Advanced Conducting (3)

Conductor's role in the preparation and presentation of the more complex masterworks. Students will be expected to participate in laboratory conducting experiences. May be repeated for credit. *Prerequisites:* 43.306 and 43.307 or the equivalent.

43.700 Analytical Studies (3)

Analysis of specified works, composers, styles, idioms, forms. Period covered is announced in semester bulletins. May be repeated for credit. *Prerequisite:* 43.305.

43.703 Advanced Composition (3)

Guidance in writing large forms. Assignments adapted to individual needs and talents. May be repeated for credit. *Prerequisite:* 43.316.

43.704 Twentieth-Century Counterpoint (3)

Study of important contrapuntal styles of the past sixty years through analysis. Practical creative writing problems in each style studied. *Prerequisite:* 43.305.

MUSIC EDUCATION**43.540 Introduction to Graduate Study in Music Education (3)**

Research techniques and materials designed to acquaint the practicing music educator with useful findings and applicable methods. Bibliography and library resources.

43.560 Music Education Workshop (Instrumental) (3)

Lecture-demonstrations in a pre-selected area (brass, strings, woodwinds, percussion) by members of the applied music faculty for the instrumental or general music teacher or the student of theory and composition. Pedagogy, playing techniques, literature for the instrument. May be repeated for credit if no duplication is involved.

43.561 Music Education Seminar (Vocal, General, Instrumental) (3)

Advanced study of a specific, pre-selected area in music education. *Prerequisite:* 43.360 or 43.361-362, as applicable.

43.740 Supervision and Administration of Music Education (3)

Nature and scope of supervision, supervisory relationships, procedures and techniques; organization and improvement of music curricular, administration of music programs and development of evaluative criteria.

43.760 History and Philosophy of Music Education (3)

Survey of the philosophy and practice of music teaching since ancient times, with emphasis on the development of music education in the United States.

APPLIED MUSIC**44.532 Service Playing and Improvisation (2)**

Techniques of score reading, service playing, improvisation, realizing figured bass, and directing from the console. *Prerequisites:* 43.313 Keyboard Harmony II and senior-level ability in organ playing, as indicated in the department Applied Music Handbook.

43.550 Pedagogy I (2)

Seminar to explore concepts of vocal and instrumental performance and their application to teaching in the private studio. *Prerequisite:* permission of instructor.

43.551 Pedagogy II (2)

Survey of literature and the teaching of instrumental and vocal techniques. *Prerequisite:* 43.550.

44.791 Private Instrumental or Vocal Study (1)

May be repeated up to six hours by a Master's Degree candidate in performance. Others limited to four hours: *Prerequisites:* 44.432 or equivalent and written permission of the Department. Fee, \$50.

44.792 Private Instrumental or Vocal Study (2)

May be repeated up to six hours by a Master's Degree candidate in performance. Others limited to four hours. *Prerequisites:* 44.432 or equivalent and written permission from the Department. Fee, \$100.

Music Education—(See Preceding)**Nursing****46.200 Nursing I (7)**

Study of health needs, assessment of nursing needs, and clinical practice in meeting the uncomplicated needs of selected patients. Five hours of class, eight hours of laboratory. *Prerequisite:* Successful completion of freshman year courses.

46.201 Nursing II (8)

Includes body's reaction to illness and injury, care of patients whose needs are complicated by disease, and care of patients undergoing surgical treatment. Five hours of class, twelve hours of laboratory. *Prerequisite:* 46.200.

46.300 Nursing III (10)

Continuation of 46.201. Includes the care of patients whose needs are complicated by disease and who are treated medically and/or surgically. Six hours of class, sixteen hours of laboratory. *Prerequisites:* 46.200, 46.201, 46.440.

46.440 Individual and Group Dynamics I (1)

Includes personality organization and development, interpersonal and intergroup relationships. Taught concurrently with 46.201 and whenever possible correlated with it. *Prerequisite:* 46.200.

46.441 Individual and Group Dynamics II (1)

Includes further development of interpersonal and intergroup relationships. Group process emphasized through work in small training groups. Taught concurrently with 46.300 and whenever possible correlated with it. *Prerequisites:* 46.200, 46.201, 46.440.

46.310 Maternal-Child Nursing (10)

Principles of growth and development and the family as a unit emphasized in caring for mothers during the maternity cycle and for sick children from birth through adolescence. Five hours of class, 20 hours of laboratory. *Prerequisites:* 46.200, 46.201, 46.300, 46.440, 46.441.

46.340 Psychiatric Nursing (6)

Focuses on psychopathology and appropriate nursing intervention. Includes care of patients, individually and in groups, in the acute and chronic stages of mental illness. Seven hours of class, 20 hours of laboratory for one-half of the semester. *Prerequisite:* senior standing.

46.400 Public Health Nursing (6)

Based on community and public health principles incorporated throughout the nursing major with emphasis on role of nurse in community health programs. Seven hours of class, 20 hours of laboratory for one-half of the semester. *Prerequisite:* senior standing.

46.410 Problem Analysis in Patient Care (4)

Deals with problems of patient with complex nursing needs. Students assume increased responsibility for nursing care to meet these needs. Four hours of class, 16 hours of laboratory for one-half of the semester. *Prerequisite:* senior standing.

46.420 Organization of Patient Care Services (4)

Emphasis on principles in management and supervision of nursing care for groups of patients and their application in working with professional and auxiliary personnel. Four hours of class, 16 hours of laboratory for one-half the semester. *Prerequisite:* senior standing.

46.430 History and Analysis of Nursing (3)

Traces nursing from antiquity to the present. Considers the relationship of this development to problems in nursing in contemporary society. *Prerequisite:* senior standing.

**Operations Research—
(See Technology of
Management)**

**Personnel Management—
(See Business
Administration)**

**Philosophy and
Religion**

Philosophy

47.100 Logic and the Scientific Method (3)

The nature of valid inference and its relation to the scientific method. Principles of inductive and deductive reasoning.

47.101 Introduction to Philosophy (3)

Questions man has asked about himself, the world, and the origin, purpose and destiny of life; representative answers given by the great thinkers.

47.102 Philosophies Men Live By (3)

Selected philosophers in the history of western thought, and their relevance to human existence.

**47.300 History of Philosophy: Ancient and
Medieval (3)**

Historical survey of representative philosophers from the early Greeks through the Middle Ages. Not open to freshmen.

47.301 History of Philosophy: Modern (3)

Philosophers from the Renaissance to Hegel. Not open to Freshmen.

47.302 History of Philosophy: Recent (3)

Philosophers from Hegel to contemporary existentialism and linguistic analysis. Not open to Freshmen.

47.303 American Philosophy (3)

Backgrounds and substance of American philosophy since colonial times. Role of philosophical ideas. European and indigenous, in the growth of the American culture. *Prerequisite:* three hours of philosophy.

47.305 Philosophies of the East (3)

Systems of thought in the East from ancient to modern times. Special emphasis upon philosophies of Confucianism, Taoism, Hinduism, and Buddhism.

47.310 Ethics (3)

Inquiry into the principles of moral evaluation, their relation to factual judgment, and individual and social behavior. Evaluation of traditional schools and theories of ethics. *Prerequisite:* three hours of philosophy..

47.311 Aesthetics (3)

Nature of beauty and the relation of the philosophy of the beautiful to the fine arts and to human experience. *Prerequisite:* three hours of philosophy.

47.500 Studies in Major Philosophers (3)

Reading and analysis of leading historical philosophers. For fall 1969, Plato: Early and Middle Dialogues. *Prerequisite*: nine hours of philosophy.

47.502 Studies in Recent Philosophers (3)

Reading and analysis of selected philosophers since Hegel as the background of contemporary philosophical movements. *Prerequisite*: nine hours of philosophy.

47.504 Contemporary Philosophy (3)

Study of a leading contemporary movement in philosophy. For Fall 1969, German Existentialism; Analytic Ethics. For Spring 1970, French Existentialism. *Prerequisite*: nine hours of philosophy.

47.506 Selected Topics in Philosophical Analysis (3)

Study of selected issues in philosophy. For Fall 1969, Knowledge and Belief. For Spring 1970, Thought and Feeling; Chinese Philosophy. *Prerequisite*: nine hours of philosophy.

47.508 Philosophy of Religion (3)

Study of a leading contemporary movement in philosophy of religion. *Prerequisite*: nine hours of philosophy.

47.520 Symbolic Logic (3)

Analysis of the development and use of symbolism in modern logic and its relevance to the clarification of logical problems. *Prerequisite*: 47.100.

47.521 Logical Analysis (3)

Application of logical theory to philosophical discourse. *Prerequisite*: 47.520.

47.525 Philosophy of Science (3)

Relationship of modern philosophy to the findings of modern science. *Prerequisite*: 47.100.

47.530 Social Philosophy (3)

Leading proposals regarding the philosophical foundation of modern culture and society. *Prerequisite*: nine hours of philosophy.

47.702 Graduate Seminar in Philosophy (3)

Intensive study of selected philosophical problems. *Prerequisite*: twelve hours of philosophy.

Topics:

- I. History of Philosophy
- II. Metaphysics
- III. Logic
- IV. Epistemology
- V. Philosophy of Science
- VI. Value Theory
- VII. Philosophy of Religion
- VIII. Social Philosophy
- IX. Eastern Philosophy

For Fall 1969, Metaphysics: Kant, Truth and Dialectic. For Spring 1970, Metaphysics: Hegel's Critique of Kant.

47.797 Master's Thesis Seminar (3-6)

Directed research of M.A. thesis proposal. *Prerequisite*: permission.

47.799 Doctoral Dissertation Seminar (6-24)

Directed research of Ph.D. dissertation proposal. *Prerequisite*: permission.

Religion

BIBLICAL STUDY

47.150 Introduction to the Old Testament (3)

Emphasis upon the substantive content of the Bible. Special attention to the historical method and the canon of biblical interpretation.

47.170 Introduction to the New Testament (3)

Literary, historical and theological study of the New Testament with particular attention upon Jesus, Paul and the development of the Christian movement.

47.180 Introduction to Religious Thought (3)

The nature of religion and essential religious concepts.

CHRISTIAN THOUGHT

47.370 History of Christian Thought I (3)

Survey of Christian thought from apostolic times through medieval period to Erasmus. Special attention to the rise of orthodoxy and heresy, in representative thinkers and councils.

47.371 History of Christian Thought II (3)

Analysis of the thought of the Protestant and Roman Catholic Reformations of the 16th century. The development and place of Christian ideas in the rise of modern secular culture.

47.374 Topics in Contemporary Religious Discussion (3)

Topics in contemporary religious discussion within or between Protestantism, Catholicism (Roman and Eastern Orthodox), and Judaism. For Fall 1969, Theology of Revolution. For Spring 1970, Scripture and Tradition; The Church and the Modern World—Since Vatican II. *Prerequisite*: 3 hours of philosophy or religion.

47.380 Psychology of Religion (3)

Psychological appraisal of religious experience, prayer, worship, belief, interpersonal relationships, religious practices and behavior.

HISTORY OF RELIGION

47.383 Comparative Religion (3)

Synoptic study of the world's living religions, their founders, literature, teachings and values.

47.394 Post-Biblical Judaism (3)

Judaism from the Maccabean period to the present. Selected philosophical, theological, institutional movements in Jewish faith and practice. *Prerequisite*: 47.150.

3.430 Primitive Religions (3)

Varieties of religious experiences and expressions exclusive of the great world religions. Role of religion in influencing behavior and in integrating particular societies, cultures. *Prerequisites*: 3.201 and 3.335.

RELIGION

47.550 Studies in Non-Christian Religions (3)

Theology and literature of non-Christian religious movements. For Fall 1969, Hinduism. For Spring 1970, Buddhism. *Prerequisite:* 47.305 or 47.383.

47.560 Selected Biblical Studies (3)

Study of selected topics in Biblical literature. For Fall 1969, Old Testament Messianism. *Prerequisite:* 47.150. For Spring 1970, New Testament Messianism. *Prerequisite:* 47.170.

47.570 Problems of Religious Thought (3)

Examination of basic problems and issues in religious thought, both classical and contemporary. For fall 1969, Bultmann. For spring 1970, God Talk. *Prerequisite:* 3 hours of philosophy or religion.

47.797 Master's Thesis Seminar (3-6)

Directed research of M.A. thesis proposal. *Prerequisite:* permission.

Physical Education—(See Health, Physical Education and Recreation)

Physics

51.100 The Science of Physics (3)

Non-mathematical discussion of topics from classical and modern physics for students with little or no background in physics. No laboratory.

51.210 Elements of General Physics I (3)

Mechanics, heat and sound. Three hours of lecture. *Prerequisite:* 41.111.

51.211 Elements of General Physics II (3)

Electricity and magnetism, light, modern physics. Three hours of lecture. *Prerequisite:* 51.210.

51.220 Fundamentals of General Physics I (4)

Intensive treatment of mechanics, heat, sound and electrostatics. Three hours of lecture, two hours of recitation. *Prerequisite:* 41.222 or concurrent registration.

51.221 Fundamentals of General Physics II (4)

Intensive treatment of electromagnetism, optics, and a survey of modern physics. Three hours of lecture, two hours of recitation. *Prerequisites:* 51.220; 41.223 or concurrent registration.

51.222 General Physics Laboratory I (1)

Selected experiments to accompany 51.210 and 51.220. *Prerequisite:* 51.210 or 51.220 or concurrent registration.

51.223 General Physics Laboratory II (1)

Selected experiments to accompany 51.211 and 51.221. *Prerequisite:* 51.211 or 51.221 or concurrent registration.

51.330 Principles of Mechanics I (3)

Vector analysis, dynamics and kinematics of particles, moving reference systems, special theory of relativity, central forces and celestial mechanics, systems of particles, rigid body dynamics. *Prerequisites:* 51.221; 41.321 or concurrent registration.

51.331 Principles of Mechanics II (3)

Vibration theory, wave propagation, and boundary value problems, Fourier analysis; Lagrangian and Hamiltonian mechanics. *Prerequisites:* 51.330, 41.321.

51.410 Special Topics Laboratory (1)

Selected experiments to accompany intermediate courses in mechanics, heat, acoustics, optics, and modern physics. Individual assignments. Three hours of laboratory. *Prerequisite:* permission.

51.450 Electricity and Magnetism I (3)

Vector analysis, electrostatic fields, potential theory and boundary value problems, dielectric media, direct current circuits, magnetic fields, magnetic media, electromagnetic induction. *Prerequisites:* 51.221; 41.321 or concurrent registration.

51.451 Electricity and Magnetism II (3)

Alternating current circuits and transmission lines, Maxwell's equations, propagation of electromagnetic waves, boundary value problems, guided waves, generation of electromagnetic induction. *Prerequisites:* 51.450, 41.321.

51.500 Introduction to Mathematical Physics I (3)

Various areas of physics: differential equations, infinite series, scalar and vector fields, curvilinear coordinates, matrices and tensors, Fourier series and partial differential equations. *Prerequisites:* 51.331, 51.451 and 41.321.

51.501 Introduction to Mathematical Physics II (3)

Various areas of physics: special functions of mathematical physics and boundary value problems, Fourier and Laplace transforms, Sturm-Liouville theory, Green's functions, variational methods, complex variable and contour integration, and probability theory. *Prerequisite:* 51.500.

51.531 Acoustics (3)

Vibrating systems, dynamical analogies. Transients and random noise. Wave propagation in strings, membranes, bars and fluids. The wave equation and its solution in one, two and three dimensions. Radiation, reflection, refraction and diffraction. *Prerequisites:* 51.331; 51.500 or concurrent registration.

51.541 Optics (3)

Maxwell's equations and electromagnetic waves, reflection and refraction, interaction of light with matter, interference phenomena, Huygens-Kirchoff diffraction theory, Fresnel and Fraunhofer diffraction, gratings, optical instruments. *Prerequisites:* 51.331, 51.451.

51.554 Principles of Electronics (3)

Circuit analysis, circuit theorems, physics of vacuum tubes and transistors, equivalent circuits. Analysis of power supplies, amplifiers and oscillators. Modulation, demodulation and pulse circuits. *Prerequisite:* 51.451.

51.560 Thermodynamics and Statistical Physics (3)

Heat, temperature, the first and second laws of thermodynamics, cycles, reversibility, entropy changes, and the thermodynamic potentials. Kinetic theory and transport phenomena. Statistical interpretation of thermodynamics, definition of entropy, Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics. *Prerequisite:* 51.572.

51.570 Introduction to Quantum Mechanics (3)

Historical background to quantum mechanics, particles and waves, the Schrödinger equation, potential barriers and potential wells, the simple oscillator, the one-electron atom, angular momentum eigenfunctions, eigenvalues, and degeneracies. *Prerequisites:* 41.321; 51.331 and 51.451 or concurrent registration.

51.572 Introduction to Atomic and Molecular Physics (3)

Review of elementary quantum mechanics, time dependent and time independent perturbation theory, magnetic moments, spin, identical particles and the exclusion principle, multielectron atoms, transition rates and selection rules, interaction of radiation with matter. *Prerequisite:* 51.570.

51.573 Nuclear Physics (3)

Charge, radius, mass, moments, statistics and parity of nuclei; nuclear transitions, systematics of stable nuclei, nuclear binding energy, nuclear forces and models of nuclei. Weak interactions, muons, pions and strange particles. *Prerequisite:* 51.572.

51.579 Introduction to Solid State Physics (3)

Elements of crystallography, lattice dynamics, specific heat and thermal properties, cohesive energy, dielectric and magnetic properties of insulators, band theory, semiconductors, metals, the theory of defects in solids. *Prerequisites:* 51.572; 51.560 or concurrent registration.

51.580 Advanced Laboratory I (1)

Selected experiments in electrical measurements. Three hours of laboratory. *Prerequisite:* 51.223.

51.581 Advanced Laboratory II (1)

Selected experiments in electrical measurements and modern physics. Three hours of laboratory. *Prerequisite:* 51.580.

51.582 Advanced Laboratory III (2)

Selected experiments in atomic physics, optics, electronics, acoustics, and machine shop practice. Three hours of laboratory. *Prerequisites:* 51.581; 51.450, 51.572 or concurrent registration.

51.583 Advanced Laboratory IV (2)

Selected experiments in electronics, optics, atomic and nuclear physics, and machine shop practice. Three hours of laboratory. *Prerequisite:* 51.582.

51.592 Laser Seminar (1)

First Semester: construction of laser. Lectures and laboratory. Independent project. Second Semester: discussion of projects. Reports on related researches conducted elsewhere. *Prerequisite:* permission.

51.599 Physics Seminar (1)

Group study and discussion of selected areas in physics. Topics to be announced. May be repeated for credit. *Prerequisite:* permission of instructor.

51.600 Mathematical Physics (3)

Linear vector space and function space; integral equations and transform methods, calculus of variations, Sturm-Liouville theory and Green's functions. *Prerequisite:* 51.501.

51.630 Theoretical Mechanics I (3)

Theoretical treatment of the general principles of mechanics, conservation theorems, Lagrange's equations and generalized coordinates, variational calculus and Hamilton's principle, matrices and tensors, rigid body dynamics, Hamiltonian mechanics. *Prerequisites:* 51.331; 51.500 or concurrent registration.

51.631 Theoretical Mechanics II (3)

Hamilton's equations and canonical transformations, Hamilton-Jacobi theory, vibration theory and normal coordinates, transition to the mechanics of continuous media, elasticity and the stress-strain tensors, fluid mechanics. *Prerequisite:* 51.630.

51.634 Waves and Vibrations (3)

Mathematical theory of waves and vibrations, boundary value problems of radiation, scattering and diffraction. Green's function and integral transforms, perturbation and variational methods. *Prerequisites:* 51.501; 51.631 or concurrent registration.

51.650 Electromagnetic Theory I (3)

Electrostatics, potential theory, boundary value problems and Green's functions, dielectric media, magnetic fields and magnetic media. Maxwell stress tensor, general theorems of momentum and energy, Maxwell's equations. *Prerequisites:* 51.451, 51.501.

51.651 Electromagnetic Theory II (3)

Electromagnetic waves and boundary value problems, guided waves, scattering theory, radiation theory, diffraction theory, eikonal and WKB methods, advanced physical optics. *Prerequisite:* 51.650.

51.654 Relativistic Theory (3)

Experimental basis for special relativity, relativistic kinematics and the Lorentz transformation, relativistic mechanics, covariant electrodynamics, Lienard-Weichert potentials. Bremsstrahlung electrodynamics conservation laws, charged particle collisions and other applications. *Prerequisites:* 51.631, 51.651.

51.660 Statistical and Thermal Physics I (3)

Principles and applications of classical thermodynamics. Classical statistical thermodynamics. *Prerequisites:* 51.560; 51.572 or concurrent registration.

51.661 Statistical and Thermal Physics II (3)

Statistical ensembles. MB, BE, and FD statistics. Application to perfect gases. Method of Darwin-Fowler. Properties of crystals. Cooperative phenomena. Real gases. *Prerequisites:* 51.660, 51.572.

51.662 Liquid State Theory (3)

Statistical theories of dense gases and liquids, cluster integrals, distribution functions; diagrammatic expansion techniques, Percus-Yevick, and hyper-netted chain approximations. *Prerequisite:* 51.661.

51.666 Atomic and Molecular Physics (3)

LS and JJ coupling schemes, Lamb shift, hyperfine structure, vibrating-rotator, Frank-Condon effect, inversions, reflections and nuclear spin states, Raman effect, optical pumping, level crossings, Hanle effect. *Prerequisite:* 51.572.

51.668 Solid State Physics I (3)

Lattice periodicity, Bloch's theorem, lattice vibrations, energy bands, Fermi statistics, Pauli paramagnetism, Hartree and Hartree-Fock equations, screening, plasma oscillations, dielectric function, impurity states. *Prerequisites:* 51.579; 51.670 or concurrent registration.

51.669 Solid State Physics II (3)

Group theory, Boltzmann equation, electrical conductivity, Hall effect, magnetoresistance, de Haas-van Alphen oscillations, magnetism, superconductivity. *Prerequisites:* 51.668; 51.671 or concurrent registration.

51.670 Quantum Mechanics I (3)

Experimental background to quantum mechanics, Schrodinger equation, eigenfunctions and eigenvalues, one-dimensional problems; WKB approximations; general principles of wave mechanics; central potentials, hydrogen atom, scattering. *Prerequisites:* 51.501, 51.572.

51.671 Quantum Mechanics II (3)

General formalism of quantum theory; angular momentum and spin; identical particles; stationary perturbations, time-dependent perturbation theory, variational method. *Prerequisite:* 51.670.

51.672 Advanced Quantum Mechanics I (3)

Lorentz group; Dirac and Klein-Gordon equation, Lorentz covariance; S-matrix, propagator theory, Feynman diagrams; applications; formal theory of scattering. *Prerequisite:* 51.671.

51.673 Advanced Quantum Mechanics II (3)

Lagrangian field theory; quantization of free fields, interactions; S-matrix theory, covariant perturbation theory, applications to quantum electrodynamics and meson problems; dispersion relations; renormalization. *Prerequisite:* 51.672.

51.674 Elementary Particle Physics (3)

Mass spectra of the baryons, mesons and leptons; properties such as spin, isospin, parity, G-parity, strangeness, etc.; strong, electromagnetic, and weak interactions; classification schemes; unitary symmetry. *Prerequisite:* 51.673.

51.675 High Energy Physics (3)

High energy elementary particle interactions, quantum field theory, symmetries, and S-matrix theory; strong interactions, pion-nucleon dispersion relations, partial wave amplitudes, electromagnetic form factors; weak interactions, beta decay, PCT, strange particle decays. *Prerequisite:* 51.673.

51.676 Nuclear Theory I (3)

Invariants, the deuteron, nucleon-nucleon problem effective-range theory, nucleon-electron interaction, nucleon-nucleus interactions at low and high energies, and the electromagnetic interaction including isotopic spin. *Prerequisites:* 51.573; 51.670 or concurrent registration.

51.677 Nuclear Theory II (3)

Nuclear shell model, many body theory of nuclei with correlations, Hartree-Fock equation and quasi-particles, collective nuclear motion, nuclear reactions including U- and R- matrix methods and pion physics. *Prerequisite:* 51.676 or permission.

51.678 Quantum Theory of Solids I (3)

Phonons, second quantization, Hartree-Fock, energy bands; plasmons; equations of motion, Green's functions, diagrammatic methods. *Prerequisites:* 51.669, 51.671 or permission.

51.679 Quantum Theory of Solids II (3)

Dielectric function; electrodynamics of metals; electron-phonon interaction, superconductivity; Fermi liquid theory; magnons, magnon-phonon interaction. *Prerequisite:* 51.678.

51.681 Quantum Electronics (3)

Quantum properties of atoms and light, linear and non-linear interactions between coherent light and matter, theory of light amplifiers and oscillators (lasers). *Prerequisites:* 51.541, 51.572; 51.671 or concurrent registration.

51.699 Current Topics in Physics (1)

Weekly seminar on recent advances in physics as reported by the current literature. Compulsory for all degree candidates.

51.781 Advanced Topics in Metal Physics (3)

The nearly free-electron model and its application to electron transport properties of liquid metals; electron states in liquid metals; relationship between metal theory and liquid state theory. *Prerequisite:* permission.

51.783 Advanced Topics in Magnetism (3)

Magnetism in atoms; dia- and paramagnetism in solids; ordered magnetic structures; superexchange; indirect exchange; spin waves; thermodynamic properties; experimental techniques. *Prerequisite:* permission.

51.785 Advanced Topics in Nuclear and Particle Physics (3)

Special topics in nuclear physics, nuclear structure from fast neutron scattering, nucleus-electron interaction at long wavelengths, the continuum in nuclear structure explored by medium energy electron scattering. *Prerequisite:* permission.

51.788 Advanced Topics in Critical Phenomena (3)

An intensive treatment of the thermodynamics and statistical mechanics of changes of state (fluid, solid, magnetic-non-magnetic, ordered, disordered), with particular emphasis on phenomena associated with critical points. *Prerequisite:* 51.661.

51.790 Research Seminar in Physics (3-6)

Various topics in advanced physics with contents selected according to need. *Prerequisite:* permission.

51.795 Research Training Seminar (3-6)

Prerequisite: 51.699.

51.797 Master's Thesis Seminar (3-6)**51.799 Doctoral Dissertation Seminar (3-6)**

Police—(See Law Enforcement Administration)

Political Dynamics—(See Government)

Political Science—(See Government)

Psychology

57.200 General Psychology (3)

Introduction to the scientific study of behavior of organisms. *Prerequisite* to all other offerings of the Department.

57.302 Advanced General Psychology (3)

Selected topics and critical issues in the major areas of psychology. Participation of individual students in experimental work is stressed. *Prerequisite:* 57.200.

57.307 Psychology of Adjustment (3)

Learning, motivational and biological characteristics of the individual in relation to his adjustment in society. *Prerequisite:* 57.200.

57.400 Developmental Psychology: Childhood (3)

Study of development through infancy and childhood, with emphasis on learning, maturation, motivation, and social functions. *Prerequisite:* 57.200.

57.401 Developmental Psychology: Adolescence (3)

Development of the adolescent, with special consideration of the psychological bases of behavior. *Prerequisite:* 57.200.

57.403 History of Psychology (3)

Historical development of major theoretical systems in psychology. *Prerequisite:* 57.302.

57.404 Social Psychology (3)

Individual behavior as influenced by and demonstrated in group settings; evaluation of contemporary research and theoretical developments. *Prerequisite:* 57.200.

57.405 Psychological Tests and Measures (3)

Fundamental principles of testing and critical survey of representative tests of achievement, intelligence, interest, aptitude and personality. *Prerequisite:* 57.302.

57.425 Physiological Psychology (3)

Anatomical and physiological substrates of behavior. *Prerequisites:* Junior standing; 57.302 or permission of instructor.

57.430 Theories of Personality (3)

Review and critical evaluation of major personality theories and current research in the field. *Prerequisites:* Junior standing and 57.302 or permission of instructor.

57.450 Abnormal Psychology (3)

Behavior pathology in the human organism. *Prerequisites:* Junior standing and 57.302 or permission of instructor.

57.460 Sensation and Perception (3)

Sensory processes and complex perceptual processes discussed in light of contemporary theories and research. *Prerequisite:* 57.302.

57.480 Learning and Conditioning (3)

Evaluation of contemporary research and theories of animal and human behavior. *Prerequisite:* 57.302.

57.492 Experimental Psychology (4)

Data and research methods in core areas of psychology. Review of experimental design. Individual and group experiments. *Prerequisites:* 57.302 and 69.301.

57.503 Psychology of Human Learning (3)

Psychological processes involved in verbal behavior, memory, problem solving and thinking. *Prerequisites:* Junior standing and 57.302 or permission of instructor.

57.504 Advanced Social Psychology (3)

Psychological factors in human social behavior. Social aspects of perception, motivation, thinking, language, attitudes, public opinion, persuasion, and prejudice. *Prerequisites:* Junior standing; 57.302, 57.404 or permission of instructor.

57.505 Test Theory and Models (3)

Theory of mental tests; assessment and prediction. *Prerequisites:* 69.202 and 57.405 or equivalents.

57.535 Instrumentation in the Behavioral Sciences (3)

Theory, demonstration and practical work covering the basic mechanical and electronic techniques used in behavioral research.

57.600 Experimental Foundations of Clinical Psychology (3)

The study of behavior, characteristics of the individual through methods of clinical measurement, observation, and psychotherapy. A study of research in the area. *Prerequisites:* Graduate standing and permission of instructor.

57.601 Foundations of Experimental Research (3)

Prerequisites: Graduate standing and permission of instructor.

57.605 Systems of Psychotherapy (3)

Review of major schools of thought concerning approaches to psychotherapy.

57.606 Assessment of Intellectual Functions (3)

Examination of representative individual tests of intelligence and laboratory practice in the administration, scoring, and interpretation of these tests. *Prerequisites:* Graduate standing and permission of instructor.

57.640 History and Systems of Psychology I (3)

Philosophical and scientific background of modern psychology and contemporary problems in theory construction. *Prerequisites:* Graduate standing and permission of instructor.

57.641 History and Systems of Psychology II (3)

Continuation of 57.640. *Prerequisites:* Graduate standing and permission of instructor.

57.660 Vocational Development and Occupational Information (3)

The meaning of work in society, vocational development as personality theory, evaluation and utilization of occupational and educational information. *Prerequisites:* Graduate standing and permission of instructor.

57.670 Techniques of Counseling (3)

Techniques of vocational, educational and personal problem counseling. *Prerequisites:* Graduate standing and permission of instructor.

57.680 Human Growth and Development (3)

Contemporary view of modern concepts, theories and research of human development.

57.691 Practicum Training (3-6)

Practice, under qualified supervision, in technical procedures related to testing and counseling.

57.698 Directed Research (3-6)**57.797 Master's Thesis Seminar (3-6)****57.798 Seminar in Psychology (3-6)**

May be repeated for credit.

Prerequisites: Graduate standing and permission of instructor.

- I. Current Research in Social Psychology (3-6).
- II. Psychometric Methods (3-6).
- III. Current Research in Learning (3-6).
- IV. The Cognitive Processes (3-6).
- V. Current Researches in Sensation and Perception (3-6).
- VI. Motivation and the Affective Processes (3-6).

57.799 Doctoral Dissertation Seminar (6)

Public Administration and Management

THE GOVERNMENTAL ADMINISTRATIVE ESTABLISHMENT (54.60M AND 54.60D)

This field emphasizes the character and functions of the administrative institutions of government—the bureaucracy as an institution, the sociology of the large administrative organization, and the relationships of the administrative establishment, as a whole, with the other institutions and functions of government. The theory and practice of the internal management of the departmental level of governmental agency is the subject of field 54.61.

54.600 The Administrative State (3)

The administrative process in public bureaucracies, including its ecology, institutional-structural characteristics, behavioral patterns and policy outputs.

53.652 The National Executive (3)

(See field 53.65)

54.602 Comparative Public Administration (3)

Managerial-administrative establishments of the major nations, as they compare with each other in conceptual foundations, structural characteristics, and functional performance. Particular emphasis on contemporary characteristics, and developments. *Prerequisite:* 54.610 or 53.630.

54.603 Administration in International Organizations (3)

History and present character of administration in the international agency context. The varieties of international administrative agencies and their special requirements of organization, secretariat structure and operation, and adaptation of general management practices. Special problems of communication, leadership, and interpersonal relations in the culturally mixed staff. Administrative-political relations in the international agency. Special emphasis on the League of Nations, historically, and the United Nations complex. *Prerequisite:* 54.610 or 33.640.

53.683 Urban Administration (3)

(See field 53.68)

SEMINARS IN THE GOVERNMENTAL ADMINISTRATIVE ESTABLISHMENT**54.700 M.A. Research Seminar (3)**

Prerequisite: permission.

54.705 General Seminars (3)

Prerequisite: permission.

54.706 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS**53.671 The Judicial System and Process (3)**

(See field 53.67)

53.672 Administrative Law (3)

THE MANAGEMENT OF THE GOVERNMENTAL ADMINISTRATIVE ESTABLISHMENT (54.61M AND 54.61D)

This field concerns the large governmental department as the unit of management, the theory and practice of accomplishing its management, and the criteria and methods of analysis of such an agency to increase the effectiveness of its operations and its management.

54.610 Modern Public Management I (3)

Development of management as a social function. The streams of past social, economic, political, and scientific thought which have merged in theory and practice of modern management. The scientific management movement. The public administration movement. The modern management movement in business and government. Introduction to basic principles of the organization, administrative direction, and operation of the complex managerial establishment in government. *Prerequisite:* Graduate standing.

54.611 Modern Public Management II (3)

Perspectives, problems, and processes of the executive function of directing the managerial-administrative organization, including the major characteristics and roles of the spectrum of management sub-functions which it must depend on and integrate. Emphasis on governmental context, but with appreciation of the similarities and contrasts with non-governmental management. Main lines of behavioral and organizational theory of managerial organization and management function. (The different competence of diagnostic analysis and creative engineering of administrative structure and process is the burden of 54.613.) *Prerequisite:* 56.610.

54.612 Advanced Organization Theory (3)

Exploration and analysis of prescriptive and descriptive-explanatory theories of the administrative process in government.

54.613 The Analysis of Governmental Organization and Operation (3)

Evaluation and diagnosis of governmental administrative organization, performance, and productivity. Design and installation of organizational and operational systems and procedures. *Prerequisite:* 54.610.

54.614 The Staff Function in Government (3)

Function of senior governmental staff service. Military and civilian perspectives and concepts. Special problems of the staff executive. Mechanisms and systems of staff coordination and control. The directive instruments of administration. *Prerequisite:* 54.611.

53.672 Administrative Law (3)

(See field 53.67)

55.660 Management Information and Reporting Systems (3)

(See field 55.66)

SPECIALIZED COURSES

(not included in the comprehensive field pattern)

54.510 The Management of Institutional Records Systems (3)

Kinds and functions of institution paper and paper-work, with primary emphasis on development and

installation of a records management problem. Physical facilities; systems and equipment for storage of record and information paper; reproduction processes and equipment; mail; correspondence; telecommunications. (For comprehensive systems of automated information storage and processing, see courses under field 55.66.) *Prerequisite:* administrative experience, or undergraduate course work in government, public administration, or business administration.

54.511 Applied Administrative Management (3-9)

A special purpose course arranged for specially organized groups of foreign participants.

SEMINARS IN GOVERNMENTAL MANAGEMENT

54.710 MA-MPA Research Seminar (3)

Prerequisite: permission.

54.715 General Seminars (3)

Prerequisite: permission.

54.716 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS

55.511 The Systems Approach (3)

(See Center for Technology and Administration)

55.512 Introduction to Cybernetics (3)

(See CTA)

55.513 Technology and Administration (3)

(See CTA)

55.540 Operations Research in Management (3)

(See CTA)

GOVERNMENTAL FINANCIAL POLICY AND PROGRAM (54.64M AND 54.64D)

The School of Government and Business Administration of The George Washington University regularly offers the following courses in this same field:

PA 248 Financing Municipal Services (3)

PA 251 Governmental Budgeting (3)

PA 252 Problems in Planning, Programming, and Budgeting (3)

PA 254 Seminar: Financial Management in the Federal Service (3)

In keeping with the purpose of the Consortium of Universities, SGPA will increasingly use these GWU courses as substitutes for its own courses in satisfaction of the requirements of this comprehensive field. For this field, the courses listed in the semester schedules of classes will be a correlated combination from the above GW courses and the following SGPA courses.

54.640 Federal Fiscal Policy (3)

Fiscal significance and effect of the Federal budget. Consideration of the subjects of national income level, tax structure, and the large expenditure areas (e.g., national defense, foreign aid, agricultural support, veterans' benefits, the public debt) as they bear on the decisions and actions of Federal budget administrators. *Prerequisite:* graduate standing and at least introductory economics.

54.641 Federal Financial Management and Comptrollership (3)

Financial functions of federal administration, including roles and relationships of the central agencies, and the budget, accounting, and other financial functions of the financial administration of the individual department or agency. For the general manager who needs to know contributions of financial management to his broader management responsibilities, and for the specializing executive or staff member who will be responsible for the financial function. This is not an accounting course. *Prerequisites:* a course in public administration or experience in budgeting or financial administration, 53.650, and graduate standing.

54.642 Financial Administration in State and Local Government (3)

Fiscal significance and effect of state and local governmental financial administration. The fiscal functions of budget, treasury management, accounting, and auditing, considered in the perspective of the administrator in state and local levels of American government. *Prerequisites:* 54.610, 63.683, or one of the preceding courses in this field, plus 53.650 and graduate standing.

54.643 Governmental Program and Budget (3)

The processes and instruments of the planning, programming, and budgetary functions of the modern public managerial establishment, with special emphasis on the current approaches of the Federal Government in this function. A course to produce top managers and senior staff specialists who can design, use and integrate these functional systems for maximum managerial effectiveness in the making of decisions and the control of performance. *Prerequisites:* a course in public administration or experience in budgeting, 53.650, and graduate standing.

54.644 Federal Budgetary Procedure (3)

The budgetary practice of the Federal Government, from the operating viewpoint. The budget cycle. Preparation and justification of estimates. Budget execution. Comparison of agency practices and techniques in budgeting. *Prerequisites:* a course in public administration or experience in budgeting, 53.650 and graduate standing.

SEMINARS IN GOVERNMENTAL FINANCIAL POLICY AND PROGRAM

54.740 MA-MPA Research Seminar (3)

Prerequisite: permission.

54.745 General Seminars (3)

Prerequisite: permission.

54.746 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS

10.656 Planning—Programming—Budgeting (3)

(See SBA)

19.541 Fiscal Theory and Planning (3)

(See Economics)

PUBLIC PERSONNEL ADMINISTRATION (53.65M AND 53.65D)

The School of Government and Business Administration of The George Washington University regularly offers courses in this same field:

- PA 231 Public Personnel Administration (3)
- PA 232 Problems in Public Personnel Management (3)
- PA 233 Seminar: Manpower Development and Utilization (3)
- PA 235 Technological Change and Manpower (3)

In keeping with the purpose of the Consortium of Universities, SGPA will increasingly use GWU courses as substitutes for its own courses to satisfy the requirements of this comprehensive field. For this field, courses listed in the semester schedules of classes will be a correlated combination from the above GWU courses and the following SGPA courses.

54.650 Principles of Public Personnel Administration (3)

Personnel Administration as an integral aspect and function of management. Its relationships with other managerial and administrative functions and processes. The characteristics and procedures of the major personnel subfunctions: recruitment, selection, classification, evaluation, training, etc. The Federal civil service system will be the primary frame of reference, but with some generalizing and comparative extension to other variants of U.S. personnel administration system.

54.651 Manpower Utilization and Public Personnel Requirements Planning (3)

Problems of national and governmental manpower supply and demand. Comparative study of military and non-military policies and practices in planning of personnel requirements of the administrative agency. Comparison of governmental and non-governmental practice. The problems of creating supply to fulfill difficult demand: job redesign; training and retraining; centralization and services; incentives; etc.

54.652 Psychological Instruments and Methods in Public Personnel Administration (3)

As applicable in: Applicant appraisal, employee selection, placement, and evaluation; testing, rating, interviewing, and investigation; analysis of group relational and behavioral problems of efficiency, fatigue, accident experience, motivation, morale, etc.

54.653 Executive Selection and Appraisal in Government (3)

Intensive analysis of the problem of executive, as contrasted with other, personal selection and appraisal, with comprehensive consideration of insufficiencies of current methods, of requirements of the problem, and of possibilities and methods for achieving significant improvement.

54.654 The Labor Relations of Public Employment (3)

Review of rapidly changing patterns of relationships among public employers, employees, and organizations of public employees, and of their implications; critical evaluation and design of policies, administrative concepts, and procedures for keeping pace with the dynamics of this field.

SEMINARS IN PUBLIC PERSONNEL ADMINISTRATION

54.750 MA-MPA Research Seminar (3)

Prerequisite: permission.

54.755 General Seminars (3)

Prerequisite: permission.

54.756 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

COURSES RELATED TO ARCHIVAL ADMINISTRATION

Courses in this subject may be found in the Department of History. SGPA students may elect this subject as a comprehensive examination field, under the History Department field number, with the special approval of the Dean of SGPA.

ONE SPECIALIZED STAFF OR LINE FUNCTION (54.67M AND 54.67D)

Consult the SGPA Associate Dean for Graduate Programs for consideration of possibilities and requirements.

CORRECTIONAL ADMINISTRATION (54.68M)

A special field limited to CCE students for the M.S. in Correctional Administration. Consult the Director of the Institute for Correctional Administration.

SPECIAL COURSES

Internships, Reading, Research, and Tutorial Courses, see these located under "Government Courses," page 185.

Personnel Administration, Public—(See Public Administration)

Public Relations—(See Communications; Business Administration)

Public Safety—(See Law Enforcement Administration)

Real Estate—(See Business Administration)

Recreation—(See Health, Physical Education and Recreation)

Religion—(See Philosophy and Religion)

Research and Development—(See Technology of Management)

Retailing—(See Business Administration)

Russian—(See Languages and Linguistics)

Sales Management—(See Business Administration)

School Counseling—(See Education)

Science, Technology and Government—(See Government)

Scientific and Technical Information Systems (CTA)—(See Technology of Management)

Social Organization—(See Sociology)

Social Psychology—(See Sociology)

Sociology

65.200 Introduction to Sociology (3)*

Fundamental characteristics of social relationships. Culture, personality, population and ecology, social institutions and processes, cultural change. Honors selection permitted.

65.221 Marriage and Family Living (3)

Recent changes in the American family: modern dating, mate-selection, engagement, early marital adjustment, communication, money, the working-wife, sex, and in-law problems. Not open to first semester freshmen.

65.340 The Family (3)

Varying forms and functions of family organization in different societies. Evolution of American family patterns. Family relations and personality formation. Contemporary social changes influencing family life.

65.345 American Society (3)

Analysis of contemporary American social institutions. American social system in historical perspective, value systems, ethnic composition, formal and informal structures.

65.346 Comparative Social Systems (3)

Comparative analysis of contemporary societies, social institutions, value systems, formal and informal organization, integration and cohesiveness, relationships with other societies.

65.347 Race Relations (3)

Sociological examination of relationship between and within racial groups; analysis of the social causes of prejudice and discrimination.

65.348 The Position of Women in the Social Order (3)

Location and description of women in the population. Nature and extent of prejudice and discrimination against women. Impact and significance of female equality upon the social order.

65.350-51 Sociology of the Afro-American (3, 3)

Examination of racism in Europe. Process of Afro-American's assimilation into U.S. culture. Negro institutions, business, leadership, education, literature, music. Migration, poverty, discrimination. The demand for equality. 65.350 is prerequisite to 65.351.

65.352 Human Ecology (3)

Relation of environment to distribution of population and to social structure and culture.

65.360 Social Change (3)

Analysis of the causes, processes, and consequences of social change. Critical examination of theories of social change in the context of comprehensive analysis.

65.361 Social Disorganization (3)

Analysis of social problems created by technical and cultural change. Social background of personal maladjustment.

* 65.200 is a general prerequisite to all 300- and 400-level sociology courses.

65.365 Introduction to Social Work (3)

Development of social welfare philosophy and practices. The areas of social work, group work, and community organization for public welfare. Community resources. Visits to selected agencies.

65.392 Social Interaction (3)

Sociological perspective of the interrelationship between individual and group. Socialization roles in small and complex organizations, mass communication and social movements.

65.410 Classical Sociological Theory (3)

Historical background of the theories, concepts, and methods of sociology; emergence and characteristics of the most significant sociological systems.

65.411 Contemporary Sociological Theory

Systematic analysis of modern sociological theories and schools of thought. Logic and procedures of theory construction. *Prerequisite:* 65.410.

65.416 Introduction to Criminology (3)

The nature, extent and social cause of delinquency and crime. The criminal law, the police and the administration of justice. The treatment of the offender.

65.420 Introduction to Social Research I (3)

Introduction to the nature, methods, principles, and techniques of scientific social research. Critical review of types of investigations, with accent on field research. *Prerequisite:* 69.202.

65.421 Introduction to Social Research II (3)

A continuation of Introduction to Social Research I. *Prerequisite:* 65.420.

65.442 Political Sociology

Systematic analyses of contributions of classical sociological writers to theory and research in politics. Methods and techniques useful in examining political behavior and institutions.

65.445 Contemporary Communities (3)

Analysis and comparison of the social and political structures and ideologies of contemporary communities of the world, stressing American community types. Approaches to community research.

65.450 Population (3)

Survey of world population trends. Introduction to methods of analysis. Determinants and consequences of variations in fertility, mortality, and migration.

SOCIOLOGICAL THEORY

65.510 Concepts of Sociology (3)

Systematic survey, critical analysis of sociological concepts. Emphasis on theoretical systems.

65.515 Law and the Social Order (3)

Functions of law in society; social origins and development of political authority around human rights. Changing role of law in the modern democratic state.

65.610 History of Sociological Theory I (3)

Comparative study of major schools of sociological theory in France, Great Britain, the United States. *Prerequisite:* permission of the instructor.

65.611 History of Sociological Theory II (3)

Comparative study of major schools of sociological theory in Germany, Austria, Italy. *Prerequisite:* permission of the instructor.

65.711 Seminar in Sociological Theory (3)

Intensive study of selected area or school of sociological thought. Emphasis on research in source materials. May be repeated for credit. *Prerequisite:* permission of instructor.

SOCIAL RESEARCH**65.511 Theory of Social Research (3)**

Critical analysis of the logical and methodological problems of social investigation. Theoretical orientation of logically distinct approaches to sociological research.

65.512 Quantitative Methods in Sociology (3)

Elements of matrix algebra and their application to Sociology and Social Statistics. Latent structure analysis in Sociology. *Prerequisites:* 41.110, 69.202.

65.514 Historical Sociology (3)

Employment of sociological concepts in the study of historical processes. Principles and techniques for the analysis of documents and their relation to sociological research. *Prerequisite:* Permission of the instructor.

65.612 Social Research Methods I (3)

Research procedures in sociology with emphasis on survey design, collection of quantitative data. *Prerequisite:* 69.202.

65.613 Social Research Methods II (3)

Research procedures in sociology with emphasis on analysis of quantitative data. *Prerequisite:* 65.612.

65.615 Opinion Measurement and Research (3)

Examination of various attempts to measure attitudes and opinions. Emphasis on the evaluation of alternate research methodologies. *Prerequisite:* 65.612.

65.691 In-Service Training Project (3-6)

Research project for qualified students working in government or private organization in areas related to their degree program. Project under supervision of faculty and organization concerned. *Prerequisite:* permission of Department Chairman.

65.712 Seminar in Social Research (3)

Investigation of recently developed techniques in various areas of social sciences and their application to Sociology. May be repeated for credit. *Prerequisite:* Permission of the instructor.

SOCIAL ORGANIZATION**65.540 Social Organization (3)**

Social structure emphasizing the nature, functioning, integration of social institutions; types of organizations: family, clique, voluntary association, work, bureaucracy, community; social differentiation and stratification.

65.542 Sociology of Political Action (3)

Critical evaluation of recent theories of political sociology. Motivation in political behavior. Application of concepts of group participation from functional sociology and psychology. *Prerequisite:* 6 hours of government.

65.543 Sociology of the Workplace (3)

Sociology of work relationships, using the workplace as the unit of analysis. Emphasis on industrialization and bureaucratization.

65.544 The Sociology of Occupations (3)

Sociology of work relationships; using the occupation as the unit of analysis. Emphasis on the process of professionalization, and on professional roles in complex organization.

65.547 Social Stratification (3)

Class, status and power relations in society. Caste, estate, social class, social mobility. Theories and empirical research findings of current importance.

65.548 Race and Culture Contact (3)

Analysis of problems and processes deriving from contacts of peoples different as to race and/or culture. Prejudice, discrimination, conflict, accommodation, acculturation, amalgamation, assimilation.

65.549 Sociology of Science (3)

Science as a major institution in modern society: historical development, social organization, inter-relationship; social, cultural determination of scientific activities; contributions from sociology of knowledge, invention, technology.

65.562 Sociology of Health (3)

Health problems in their social and economic aspects. Sociological methodologies and findings in the area of health and medical care.

65.567 Urban Redevelopment (3)

Theory and practice of urban redevelopment. Causal factors of city blight and slums; efforts of public, private agencies. Planning, financial, social legislative aspects of urban redevelopment.

65.580 Sociology of Religion (3)

Concepts, methods and techniques in the sociological analysis of religion. Historical, comparative and functional approaches to religion. Emphasis on European and American Christianity.

65.714 Seminar in Social Organization (3)

Consideration of theoretical and methodological problems in the field and preparation of related research reports. May be repeated for credit. *Prerequisite:* Permission of the instructor.

POPULATION AND ECOLOGY**65.550 The City (3)**

Patterns and process of urban society. Ecological and social organization of the modern city. Urban problems and trends. Emphasis on methods of research in the field. *Prerequisites:* 65.352, 69.202.

65.551 Analysis of Population Trends (3)

Measurement and analysis in demography with substantive treatment of population trends. Stable population theory; factors affecting fertility and mortality; population projection, population distribution. *Prerequisites:* 69.202, 65.450.

65.554 Morbidity and Mortality Analysis (3)

Various concepts of a population; increment and decrement functions, measurement of morbidity, life table functions, survivorship function as research tool, biological aspects of life table. *Prerequisite:* 65.551.

65.715 Seminar in Population Studies (3)

Investigations of selected problems, with related discussion of theory and methodology. May be repeated for credit. *Prerequisite:* permission of the instructor.

SOCIAL PSYCHOLOGY**65.570 Social Psychology of Intergroup Tensions (3)**

Intergroup prejudice and its relation to other aspects of personality and social behavior. Recent research on the determinants of intergroup attitudes. Techniques for the reduction of intergroup tension.

65.591 Person and Society (3)

Ways in which the individual becomes a person with tendencies to play various roles in different situations. Social control through interpersonal relations and self-conception.

65.592 Social Aspects of Mass Communication (3)

Communication of ideas in modern society. Special attention to current empirical research on mass media in relation to sociological theory.

65.593 Collective Behavior (3)

Analysis of crowd, mass, public behavior. Relationship to social movements of modern times. Role of leadership in various types of collective behavior. Factors, processes in emergence of social order.

65.716 Seminar in Social Psychology (3)

Consideration of sociological aspects of recent theoretical and methodological advances in the field and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of the instructor.

SOCIAL CHANGE AND DISORGANIZATION**65.560 Social Conflict (3)**

Sociological analysis of the history, typology, structure, function and nature of social conflict.

65.561 Public Welfare: Principles and Problems (3)

Principles underlying public welfare programs and major problems in the field. Organizational structure, methods of operation of federal, state, local agencies administering programs.

65.563 Causes of Crime (3)

Nature, causal factors in delinquent behavior. Natural history of delinquent careers. Programs and policies for controlling problems of delinquency and crime in urban areas.

65.566 Aging in Modern Life (3)

Social, economic, health problems related to the aging process. Changing social roles, attitudes. Provisions for the economic, health, psychological, social needs of the older person.

65.568 Treatment of the Offender I (3)

Critical examination of the theory, practices and problems in the fields of probation and parole of adult offenders. *Prerequisite:* 65.563.

65.569 Treatment of the Offender II (3)

Critical examination of the theory, practices and problems in the institutional treatment of adult offenders. *Prerequisite:* 65.563.

65.713 Seminar in Family and Marriage Relations (3)

Intensive study of selected problems in the area of family and marriage relations. Student reports and critical appraisals by the seminar. *Prerequisite:* permission of the instructor.

65.717 Seminar in Social Change and Disorganization (3)

Consideration of recent developments in the methodological and theoretical approaches to selected problems in the area of social change and disorganization, and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of the instructor.

65.797 Master's Thesis Seminar (3-6)**65.799 Doctoral Dissertation Seminar (3-6)****South and Southeast Asia
—(See International
Studies)****Soviet Union and Eastern
Europe—(See
International Studies)****Spanish—(See Languages
and Linguistics)****Special Education—(See
Education)****Speech Arts****67.110 Public Speaking (3)**

Principles of public speaking, sound standards for evaluating speeches, and practice in the preparation and presentation of several types of public addresses.

67.116-119 Practicum (1)

Laboratory practicum in the several areas of the Department of Speech Arts: Rhetoric, Public Address, and Theatre. *Prerequisite:* consent of the Department Chairman.

67.122 Introduction to Theatre (3)

Survey of the various phases of contemporary theatre in relationship to its historical development, dramatic literature, and aesthetics.

67.123 Stagecraft (3)

Theory and practice of construction and rigging methods and materials for the technical aspects of productions with emphasis on application through laboratory experience. *Prerequisite:* 67.122.

67.150 Argumentation (3)

Use of reason, nature and forms of argument, structure of argumentative discourse, and relationship of delivery to effective argument.

67.151 Persuasion and Discussion (3)

Nature and role of communication in group discussion and group problem solving, plus the theories and techniques of persuasion.

67.170 Oral Interpretation (3)

Analysis, interpretation, and practice in expressive reading of literature to develop ability in sharing literature with an audience.

67.320 Scene Design I (3)

Fundamentals of perspective drawing and the graphic presentation of floor plans and elevations for design in the performing arts. Laboratory. *Prerequisite:* 67.123.

67.321 Stage Lighting (3)

Lighting instruments, control boards, and the use of lighting as an integral part of the play's design for the performing arts. Laboratory. *Prerequisite:* 67.123.

67.322 Stage Movement (3)

Analysis and understanding of the body movement as the actor's visual means of communication with an audience.

67.323 Theory of Acting (3)

Analysis of the basic principles and theories, and philosophical origins of the dramatic performance expressed through any of the contemporary entertainment media. *Prerequisites:* 67.322 and 67.170.

67.324 Technique of Acting (3)

Analysis of the actor's problem through a detailed exploration of the craft and techniques of the actor related to the performing arts. *Prerequisites:* 67.322, 67.323.

67.326 Introduction to Playwriting (3)

Special techniques required for dramatic scripts with emphasis on plotting, characterization, dialogue, pacing, mood. *Prerequisite:* permission of instructor.

67.350 Introduction to Rhetoric (3)

Survey of the nature, scope and significance of the tradition of rhetoric as expressed in works of major theorists from antiquity to present. (Non-performance course)

67.351 Introduction to Public Address (3)

Critical examination of the ideology, strategy, and techniques of public speakers who have influenced the thoughts and directions of modern democratic and totalitarian societies. (Non-performance course)

67.352 Public Address in Contemporary Society (3)

Analyses of the character and role of speeches addressed to selected 20th century issues.

67.510 Advanced Public Speaking (3)

Theory and practice of speech composition with emphasis on style and content. *Prerequisite:* 67.110 or permission.

67.520 Advanced Scene Design (3)

Fundamentals of design for the performing arts, including preparation of sketches and drawings based on the principal styles and periods in theatre. *Prerequisite:* 67.320 or permission.

67.521 Problems in Scene Design (3)

Special design problems designed to meet the individual student's interests in design for drama, ballet and opera. *Prerequisite:* 67.520.

67.524 Costume Design I (3)

The history of theatrical costumes from antiquity to late 16th century. *Prerequisite:* permission of instructor.

67.525 Costume Design II (3)

Covers costuming from late 16th century to 1914. *Prerequisite:* permission of instructor.

67.532 Directing (3)

Direction in the theatre, including comparison with and contrast to the other dramatic media. *Prerequisite:* 67.323.

67.542 Advanced Directing (3)

Seminar laboratory course in problems of directing plays for the theatre. *Prerequisites:* 67.532 and consent of the instructor.

67.550 History of Theatre I (3)

Development of the stage and the drama from Greek through Renaissance. *Prerequisites:* 67.122 and advanced undergraduate standing.

67.551 History of Theatre II (3)

Development of the stage and the drama from the 17th century to 1914. *Prerequisite:* 67.550 desirable.

67.556 History of the American Theatre (3)

The theatre in America as a cultural force from the colonist period to 1920. *Prerequisite:* advanced undergraduate standing.

67.560 Dramatic Theory and Criticism (3)

Investigation of historical criticism as related to modern dramatic theory and criticism. Weekly written criticisms of dramatic productions will be required. *Prerequisites:* 67.550-551, plus 6 additional hours of approved drama or English courses.

67.561 Advanced Playwriting (3)

Practical experience in writing the full-length play. May be repeated. *Prerequisite:* permission.

67.570 Advanced Oral Interpretation (3)

Preparation of more complex literary forms for platform presentation. *Prerequisites:* 67.170 plus 67.323 or consent of the instructor.

67.579 Seminar in Methods of Teaching Speech (3)

Designed to acquaint the prospective speech teacher with the philosophy, theory, practice and methods of speech education. *Prerequisite:* 18 hours of Speech Arts.

67.594 Seminar in Rhetoric (3)

Works of the principal theorists in the major periods in the development of the body of rhetorical theory. The periods and works studied will be announced from semester as the course is offered. May be repeated for credit. *Prerequisite:* Graduate standing or permission.

67.595 Seminar in Public Address (3)

Study of the public address of a specific period or problem area through critical study of the works and methods of its principal speakers. Topics will be announced from semester to semester. May be repeated for credit.

67.596 Seminar in Theatre (3)

Study of specific problems in items of theatrical presentation of theatre history. Topics will be announced the semester the course is offered. May be repeated for credit.

67.602 Research Seminar in Speech Arts (3)

Required seminar of all graduate students in the Department of Speech Arts. Research problems will vary from semester to semester.

67.721 Problems in Technical Theatre (3)

An intensive survey of all phases of technical theatre for the graduate student.

67.797 Master's Thesis Seminar (3-6)**67.798 Non-Thesis Option Seminar (3-6)**

See also: *Department of English* for courses applicable to major in Speech Arts. The following such courses may be taken for credits in Speech Arts:

- 23.550 Classical Drama (3)
- 23.524 Shakespeare I (3)
- 23.525 Shakespeare II (3)
- 23.522 English Drama: 10th Century to 1642 (3)
- 23.529 Restoration and 18th Century Drama (3)
- 23.538 British Drama: 19th and 20th Centuries (3)
- 23.549 Modern American Drama (3)
- 23.557 Modern European Drama (3)

The following courses from the *Department of Communication* may be taken for credits in Speech Arts:

- 17.558 History of Motion Pictures (3)
- 17.583 Film Production (3)

Statistics—(See Mathematics and Statistics)**Studio Art—(See Art)****Supervision and Curriculum Development—(See Education)****Technology of Management—(See Technology and Administration following)**

Technology and Administration

PREPARATORY COURSES

55.310 Introduction to Data Processing (3)

An introduction to problems, principles, and methods of Data Processing. *Prerequisites:* 69.400 and 41.101 or 41.110, or equivalent, or permission.

55.333 Computer Programming I (3)

System 360 assembly language and beginning FORTRAN. *Prerequisite:* 55.310 or equivalent.

55.334 Computer Programming II (3)

Full FORTRAN IV, and COBOL. *Prerequisite:* 55.310 or equivalent.

55.411 Introduction to Management Mathematics (3)

Mathematical logic, elementary point set theory, finite probability, Markov chains, difference equations, vectors and matrices and matrix games. *Prerequisite:* 41.101. Not required where 41.110 and 41.111 (or equivalents) have been completed satisfactorily.

GENERAL COURSES

55.511 The Systems Approach (3)

Introduction to the systems analysis approach to the study and design of managerial and operational organization and process. Fundamental to all other courses in this general sequence, or for anyone who expects to be responsibly concerned with managerial, operational or control organizations and processes of business or government. Includes problem exercises to illustrate the rigor of the discipline and the nature and scope of its applications.

55.512 Introduction to Cybernetics (3)

Introduction to the abstractions of Cybernetics. Operational aspects of human intellect are translated into machine simulation and examined for validity of communication and control. The man-machine symbiosis is studied as a means to augment man's capability to solve complex problems. The stability of large and small systems through homeostatic control included. Mathematical explanations are kept at a minimum.

55.513 Technology and Administration (3)

Effects of technological and scientific development on the organizational, operations, and staff functions of the public or private administrative establishment. The implications for the manager and the managerial unit of the information and cybernetic revolutions, and of modern technological instruments and methods for the performance of societal and administrative functions. Reciprocal effects of managerial requirements on technological development. Includes a general appreciation but not an intensive development of the significance of research and development for the general manager or administrator.

COURSES RELATED TO THE COMPREHENSIVE EXAMINATION FIELDS

55.063 COMPUTER SYSTEMS

55.530 Automatic Data Processing Systems (3)

Survey of systems aspect of ADP. Emphasis is placed on the computer organization and equipment operation, the concept of programming, data processing equipment, information and data systems, systems analysis, equipment acquisition and utilization, and data communication systems. *Prerequisite:* 55.310 or equivalent experience.

55.531 Computer Design (3)

Boolean algebra, application of Boolean algebra to switching elements, control, arithmetic units and converters, error detection and correction, logic of storage elements and sequential circuits, finite automata. Turing machine. *Prerequisites:* 55.530 and 55.411, or 41.111.

55.561 Management of Automatic Data Processing Systems (3)

See Field 55.66 for course description. *Prerequisites:* 55.530; and 10.456 or 53.353 or equivalent experience.

55.632 Advanced Computer Applications (3)

Applications to behavioral and management sciences, artificial intelligence and simulation of cognitive processes. *Prerequisite:* 55.334 and 55.530, or equivalents.

55.633 Evaluation of Software (3)

Criteria used to evaluate the many facets of software are examined. Based on restrictions of hardware selection, the nature of the data processing problem and system specifications, a variety of software packages are examined. *Prerequisites:* 55.334 or equivalent.

55.635 Workshops in Computer Systems (3)

These workshops will deal with one or more of the following topics as needed: Higher level and procedure-oriented languages, multi-processing, multi-programming; simulation languages, and data transfer systems. File structures are also examined. *Prerequisites:* 55.334 and 55.530. (Additional mathematical requirements may be necessary in specific subject coverages. See current session Schedule of Classes.)

SEMINARS

Prerequisite: permission.

55.730 (or 55.735) Seminars in Computer Systems (3)

Offered with varying sub-subjects.

55.799 Doctoral Dissertation Seminar: Technology of Management (3-12)

55.064 OPERATIONS RESEARCH

55.540 Operations Research in Management (3)

How operations research supports management; decision theory approach; applied decision theory; introduction to basic operations research models and problems; implementation of operations research solutions. *Prerequisites:* 69.300 or 69.400; 41.111 or 55.411.

55.542 Probability and Statistics for Management Decisions (3)

Decision under uncertainty; cost of uncertainty; probability distributions; conditional models; Bayesian approach; sequential decision procedures; hypothesis testing; estimation. *Prerequisites:* 69.300 or 69.400; 41.111 or 55.411.

55.544 Advanced Management Mathematics (3)

Course provides a review of mathematics necessary for advanced work in Operations Research. It covers sets and relations; mathematical induction; series; limits and continuity; differentiation; optimization; integration; differential equations; probability theory. *Prerequisite:* 41.111 or 15.411. Not required where 41.222 and 41.223 (or equivalents) have been satisfactorily completed recently. This course will be required, as a prerequisite for 55.641, of students whose differential and integral calculus were taken more than ten years ago.

55.641 Methods of Operations Research I (3)

Sampling; inventory problems; replacement problems; waiting lines; competitive strategies; linear programming; sequencing; dynamic programming. *Prerequisites:* 55.540; 55.542; 41.223, 55.544 (as stated above).

55.642 Methods of Operations Research II (3)

Systems and simulation; developing and using models; evaluating industrial systems; applications with stochastic processes; schedule control; market evaluations; military, government and industrial problems. *Prerequisite:* 55.641.

55.666 Cost-Benefit Analysis (3)

An examination of the techniques used to evaluate non-market oriented goods and services. *Prerequisites:* 55.411, 55.544, or 41.222 and 41.223.

SEMINARS:

Prerequisite: permission.

55.740 (or 55.745) Seminars in Operation Research and/or Management Science (3)

Offered with varying sub-subjects.

55.799 Doctoral Dissertation Seminar: Technology of Management (3-12)

55.065 SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS

55.550 Survey of Information Science and Technology (3)

Introductory survey of scientific and technical communications field with emphasis upon modern mechanized methods. Information theory, documentation, reprography, computer-aided photocomposition among the topics covered. Symbiotic relationship between the publishing field and information storage and retrieval systems stressed as underlying philosophy of the course. Modern library practices discussed with a view towards automation and computerization. A prerequisite for all other courses in the Scientific and Technical Information Systems area. *Prerequisite:* 55.310 or equivalent experience.

55.650 Natural Language Data Processing (3) (formerly Computational Linguistics)

A basic knowledge of computational linguistics is useful in any field in which the computer is called upon to interpret or to analyze natural language such as indexing and classifying documents, extracting and abstracting, analyzing stylistic variations, machine translation and automating concordances.

This is a non-specialist oriented introduction to the field for information scientists, computer programmers, librarians and others interested in learning the scope of computer applications in alleviating some of the more tedious and repetitive tasks of scholarly research. Students of modern linguistics should be particularly concerned with the implications of this powerful tool in their discipline. *Prerequisite:* 55.550 or equivalent experience.

55.651 Technical Information Machine Systems

The application of machine systems with major emphasis on the handling of the scientific and technical literature. The capabilities of mechanized systems are emphasized, with adequate consideration being given to software developments. File organization and record formatting are stressed. User requirements and evaluation techniques form the central core of this course. *Prerequisites:* 55.530, 55.500 or their equivalents in experience.

55.653 Concept of Abstracting and Indexing (3)

Although stressing the impact of automatic data processing and mechanized methods upon the processing and dissemination of information, course emphasizes mainly the intellectual functions to which this information must be subjected before and after machine intervention. Deals with the "arts" of abstracting and indexing. Analyses technical writing, annotating, indicative and informative abstracting, classification methods including the Universal Decimal Classification and faceted classification, word indexing both in- and out-of-context, vocabulary control and Thesaurus-building, links and roles, citation indexing and relevance/recall ratios. Students must abstract and index a limited number of documents in their own fields of interest and specialization. *Prerequisite:* 55.550 or equivalent experience.

55.654 Workshops in Technical Information Handling (3)

From time-to-time, as warranted by current interest, faculty availability and composition of the student body, special topics will be covered. Examples are chemical notation systems, specialized information needs of various disciplines and professions (e.g. law, medicine, business administration, etc.), and integrated information networks. Students may repeat this course several times, provided that identical topics are not duplicated. *Prerequisite:* 55.550.

55.655 Automated Library Systems (3)

Introduction to the application of Systems Analysis and computers to the modern library. Library functions are analyzed systematically with a view toward the automation and mechanization of such clerical functions as book and journal acquisitions, preparation of accession lists, charging-out routines, etc. In addition, the use of the computer in the production of catalog cards, book catalogs, bibliographies and indexes is emphasized. Techniques for the evaluation of library effectiveness discussed with the ultimate aim of providing maximum user satisfaction. Particularly

directed at practicing librarians who wish to apply modern systems of technology to their own libraries. *Prerequisite:* 55.550 or permission of the instructor.

55.656 Publication Techniques (3)

Careful analysis of the present state-of-the-art of primary journal publication with emphasis on economic factors.

Computer-aided photocomposition technology, with emphasis on machines such as the Photon, Video-comp and Linotron. Mechanized processing of primary publications, abstracts and indexes as part of an integrated system in which scientific and technical publications are part-and-parcel of information storage and retrieval systems, i.e. the Medical Literature Analysis and Retrieval System (MEDLARS) of the National Library of Medicine.

55.655 Automated Library Systems (3)

An examination of the recent techniques used to apply computer principles to library problems. *Prerequisite:* 55.550.

55.656 Publication Techniques (3)

A study of the several techniques used in publication. *Prerequisite:* 55.550.

SEMINARS

Prerequisite: Permission.

55.750 (or 55.755) Seminars in Scientific and Technical Information Systems (3)

Offered with varying sub-subjects.

55.799 Doctoral Dissertation Seminar: Technology of Management (3-12)

55.066 MANAGEMENT INFORMATION SYSTEMS

55.560 Systems Design for Business Operations (3)

Mechanization and automation of office operations. Practical course in the capabilities, applications, and design and use of systems for handling administrative data, cases, and processes. Punch card machines; electronic computers. For accounting systems design, see SBA 10.540. *Prerequisite:* 55.530.

55.561 Management of Automatic Data Processing Systems (3)

Whether the use is technical information, administrative operations, or management information, the machine system itself has to be planned, installed, and run. This course concerns: estimate of requirements; organizational arrangements; planning the total system; conversion problems; costs and performance evaluation; the executive role in achievement of integration. *Prerequisites:* 55.530; 10.456 or 53.353 or equivalent experience.

55.653 Concepts of Indexing and Abstracting (3)

See 55.065 field for course description.

55.660 Management Information and Reporting Systems (3)

The decision maker's information requirement. Related system performance requirements. Design and installation of the responsive system. PERT, CPM, and similar, planning and control information systems. Problems and techniques of executive use of the system product. Interaction and integration of informa-

tion processing systems and institutional records systems. Workshop in the design and installation of actual and model systems. *Prerequisites:* 69.400 and 55.530.

SEMINARS

Prerequisite: permission.

55.760 (or 55.765) Seminars in Management Information Systems (3)

Offered with varying sub-subjects.

55.799 Doctoral Dissertation Seminars: Technology of Management (3-12)

55.067 RESEARCH AND DEVELOPMENT MANAGEMENT

55.570 Management of Research and Engineering Organizations and Laboratories (3)

The basic course on the internal management of the research performance organization. The full spectrum of the elements of effective management as they apply in such organization. Comparisons of general management practices, in government and business, with the situation of the research organization. *Prerequisites:* for undergraduates, 55.310 or 10.481. For graduate students, comparable course work or experience.

55.571 Creativity and Invention (3)

Interdisciplinary social science course directed to the understanding of creativity and invention and of the determinants of their occurrence and quality in persons and groups. Combines scientific-historical case study with review of contemporary behavioral science knowledge. Practical purpose is to sensitize the R&D manager to this requisite of his organization and purpose, and to help him articulate managerial tools and policies for its maximization.

55.670 The Politics and Economics of Research and Development (3)

Magnitude, characteristics, and politico-economic significance of the R&D economy of the U.S. and, comparatively, of other countries. The structure and nature of the U.S. research industry. The government-business defense economy. Governmental non-military research. Business and industrial research. Trends and forecasts. National resources allocation, and other political and economic problems.

55.671 R & D in the Total Organization (3)

Criteria for top management decisions: (a) Capabilities of scientific, technological, and social science research; (b) utilization for needs of the specific organization; (c) definition of R&D requirements, in-house and/or external implementation, determination of budget; (d) evaluation of success and contribution to organizational objectives; (e) conversion of R&D results into governmental or business applications, products, or processes.

55.672 Scientific and Engineering Manpower (3)

A study in depth of scientific and engineering manpower stressing the role of the individual in the R&D environment and his interface with the total resources of which he is a part. The impact of the innovative forces at work. For the advanced graduate student. *Prerequisites:* 55.570 and at least one other of the above R&D courses.

55.673 Planning and Control of Research and Development Operations (3)

Study in depth of the role of today's research and development manager. Review of operational policies and goals. Forecasting, planning and programming techniques, analysis methodology. Exercise of "value judgments." Intended for the advanced graduate student. *Prerequisites:* 55.570 and at least one other of the above R&D courses. NOTE: If 55.770 is not offered in any given semester, 55.673 will be accepted as the SGPA Master's research requirement (in lieu of thesis).

55.775 Seminar in Research and Development Management (3)

Critical review of literature pertinent to modern R&D Management, intended to develop within the R&D executive a clear grasp of the applicability of current knowledge of problem solving. A study in depth of today's research and development manager. Intended for the very advanced graduate student. *Prerequisite:* permission.

55.799 Doctoral Dissertation Seminars: Technology of Management (3-12)

55.068 SOURCES OF SCIENTIFIC INFORMATION—ONE SCIENCE

As stated in the introductory description of comprehensive fields, available, very selectively, only to Ph.D. students who also elect 55.065 *Scientific and Technical Information Systems*. The related course work or independent study or research will depend on the particular scientific field involved, and will be individually planned for the student on the basis of what is available from cooperating science departments in this University or the other members of the Consortium of Universities.

Theatre—(See Speech Arts)

Traffic Management—(See Business Administration Transportation)

Transportation—(See Business Administration)

Urban Affairs—(See Government; Public Administration)

Western Europe—(See International Studies)

World Human Needs—(See International Studies)

1968-69 Faculty

The following list represents those individuals who taught at The American University during the past academic year.

1968-69 Faculty

THE FACULTY LIST BELOW COVERS THE 1968-69 ACADEMIC YEAR ONLY.

A

Morris Abrams (1960), B.S., Maryland; L.L.B. Washington College of Law, American University. *Lecturer in Mathematics and Statistics.*

Nguyen H. Ai (1968), B.A., American University; M.A., Duke University. *Lecturer in Languages and Linguistics.*

Vincent A. Albers, B.A., Rice University; M.P.A., The American University. *Lecturer, Technology and Administration.*

William Aldred, B.A., University of North Carolina; M.S., Texas A & M University. *Professorial Lecturer, Technology and Administration.*

Mary H. Aldridge (1935), B.S., Georgia; M.A., Duke; Ph.D., Georgetown. *Professor of Chemistry.*

Edward L. Allen (1949), B.S., Columbia University; M.A., Ph.D., American University. *Adjunct Professor of Economics.*

Rose Alpher (1969), B.A., Hunter College. *Lecturer in Education.*

William E. Amos (1968), B.S.E., State College of Arkansas; M.A., University of Tulsa; M.Ed., University of Maryland; Ed.D., University of Maryland. *Adjunct Professor of Education.*

Dale L. Anderson, B.S., Oregon State; M.S., Purdue. *Lecturer, Business Administration.*

Edward A. Anderson, Jr. (1966), B.S., Lebanon Valley College; M.S., University of Notre Dame. *Lecturer in Mathematics and Statistics.*

Robert B. Anderson (1962), B.A., Yale; L.L.B., Harvard. *Professorial Lecturer in English.*

Richard R. Anderson (1966), A.A., Clark Junior College; B.S., Lewis and Clark; M.S., Ph.D., Maryland. *Assistant Professor of Biology.*

Marilyn Ann Andrulis, B.S., University of California; M.S., University of Illinois; Ph.D., University of Texas. *Professorial Lecturer, Technology and Administration.*

Carl G. Anthon (1961), B.A., Chicago; M.A., Ph.D., Harvard. *Professor of History.*

Fredric C. Appel (1969), A.B., Columbia University; M.S., Columbia University. *Adjunct Professor of Communication.*

Maurice Apstein, B.S. (EE), College of the City of New York; M.E.A., George Washington; Ph.D. American. *Adjunct Professor of Government and Public Administration.*

Samuel J. Archibald (1969), B.A., University of Colorado. *Adjunct Professor of Communication.*

Arthur G. Ashbrook (1963), B.S., Haverford; Ph.D., Massachusetts Institute of Technology. *Professorial Lecturer in Economics.*

Martin Atlas, A.B., New York; A.M., Columbia; LL.B., George Washington. *Professorial Lecturer, Tax Aspects of Real Estate, Business Administration.*

Rollins S. Atwood, B.S., Chicago; M.A., Ph.D., Clark. *Adjunct Professor of Latin American Studies, International Service.*

Gregory Auleta (1969), B.A., Colgate; M.A., Indiana. *Instructor of English.*

Charles F. Austin, B.S. in M.S., Maryland; M.B.A., D.B.A., Harvard. *Professorial Lecturer, Business Management, Business Administration.*

B

William Bader, B.A., Pomona; M.A., Ph.D., Princeton. *Adjunct Professor of International Relations, International Service.*

W. Michael Bailey (1966), B.A., North Texas State. *Instructor of Economics.*

Nathan A. Bailly (1946), B.S. in S.S., College of the City of New York; M.A., Ph.D., Columbia. *Dean, Business Administration; Professor, Business Management.*

Kenneth Baker (1966), B.A., M.A., Kansas. *Assistant Professor of Speech Arts.*

C. Canby Balderston (1966), B.S., M.A., Ph.D., Pennsylvania. *Adjunct Professor, Finance, Business Administration.*

Esther W. Ballou (1955), B.A., Bennington; M.A., Mills College; Graduate Degree, Juilliard. *Assistant Professor of Music.*

Daniel Banes (1952), B.S., M.S., Chicago; Ph.D., Georgetown. *Adjunct Professor of Chemistry.*

Boris I. Baranovic (1966), B.A., in Dramatics, Amherst; M.F.A., Yale. *Assistant Professor of Speech Arts.*

Nathaniel R. Barish, B.A., M.A., University of California; M.A., Columbia University; Ph.D., The American University. *Professorial Lecturer, Technology and Administration.*

Nancy Barrett (1966), Goucher; M.A., Ph.D., Harvard. *Assistant Professor of Economics.*

Charles I. Bartfeld (1966), M.B.A., Ph.D., Columbia. *Director, Computer Systems Program. Associate Professor, Management Sciences, Business Administration.*

Patricia Bartlett (1968), B.A., Wheaton College; M.S., American. *Instructor of Biology.*

Richard A. Bassler, B.S., University of Colorado; M.S., George Washington University. *Professorial Lecturer, Technology and Administration.*

Merritt C. Batchelder (1935), A.B., Hillsdale; M.A., Columbia; Ph.D., Iowa. *Professor of English.*

Paul S. Bauer (1959), B.S., M.S., Harvard. *Adjunct Professor of Earth Sciences.*

Martin A. Baum, B.S., Drexel Institute of Technology; M.S., Johns Hopkins University. *Professorial Lecturer, Technology and Administration.*

Arthur P. Bean, Jr. (1936), B.A., M.A., Virginia. *Assistant Professor of English.*

Douglas N. Beatty, B.S.E., M.S.E., Princeton University. *Professorial Lecturer, Technology and Administration.*

Fernand D. Bedard (1962), B.S., Fordham; Ph.D., Johns Hopkins. *Adjunct Professor of Physics.*

Robert Lee Beisner (1965), M.S., Ph.D., Chicago. *Associate Professor of History.*

Willis Bennett (1967), *Lecturer in Music.*

Walter A. Benson (1967), B.S., Illinois; Ph.D., Colorado. *Professorial Lecturer in Chemistry.*

Joanne M. Benton (1964), B.S., Maryland. *Instructor of Health, Physical Education, and Recreation.*

Nellie M. Bering (1962), B.S., William and Mary; M.T., (ASCP). *Professorial Lecturer in Biology.*

Laszlo Berkowits (1968), B.A., University of Cincinnati; M.A., Hebrew Union College. *Chautauqua Lecturer in Religion.*

Sina Berlinski (1965), State Teacher's License State Conservatory Leipzig; Liscense d' Enseignement, Ecole Normal De Musique, Paris. *Professorial Lecturer in Music.*

Morton Beroza (1969), B.S., George Washington University; M.S., Ph.D., Georgetown University. *Adjunct Professor of Music.*

Billy E. Berry, B.P.A., University of Mississippi; M.B.A., The American University. *Lecturer, Technology and Administration.*

Oscar Bessio, B.S. in M.E., Cooper Union; M.S. in M.E., Columbia; M.B.A., American. *Professorial Lecturer, Production Management, Business Administration.*

Madeleine Betts (1969), B.A., M.A., University of Ottawa; Ph.D., University of Illinois. *Assistant Professor of Languages and Linguistics.*

John A. Bielic, B.A., M.A., University of Maryland. *Lecturer, Technology and Administration.*

Jay Louis Binder, B.S., M.B.A., American. *Lecturer, Business Policy, Business Administration.*

Martin Binkin, B.S., Washington University; M.B.A., University of Michigan. *Professorial Lecturer, Technology and Administration.*

Donald G. Bishop (1967), B.A., Youngstown. *Lecturer in Communication.*

Wesley Bishop, B.S., M.A., Murray State. *Lecturer, Industrial Relations, Business Administration.*

Barbette Blackington (1967), B.A., Colby College; M.A., Howard. *Assistant Professor of Sociology.*

William W. Blaisdell (1968), B.S., Columbia University; Ph.D., Yale University. *Adjunct Professor of Sociology.*

Robert O. Blanchard (1965), B.S., M.S., Northwestern; Ph.D., Syracuse. *Associate Professor of Communication.*

Edward L. Bliss, Jr. (1967), B.A., Yale. *Associate Professor of Communication.*

Barry Blose (1969), B.A., Yale; M.A., Ph.D., Columbia. *Assistant Professor of Philosophy.*

John James Bodine (1968), B.A., University of Oklahoma; M.A., Ph.D., Tulane. *Associate Professor of Anthropology.*

Edward Gordon Boehm (1968), B.S., Frostburg. *Instructor of Health, Physical Education and Recreation.*

Joseph Borkin, B.S., M.A., New York U. *Professorial Lecturer, Business Law, Business Administration.*

Vera Z. Borkovec, (1966), M.A., Hollins; M.A., American. *Assistant Professor of Languages and Linguistics.*

Morris R. Bosin, B.S. in B.A., M.B.A., American. *Lecturer, Marketing, Business Administration.*

Harry A. Boswell, Jr., B.S., Maryland; LL.B., Georgetown. *Professorial Lecturer, Real Estate, Business Administration.*

Robert T. Bower (1949), B.A., Columbia University. *Professorial Lecturer in Health, Physical Education, and Recreation.*

W. Donald Bowles (1957), B.A., University of Washington; M.A., Ph.D., Columbia. *Professor of Economics, Dean, College of Arts and Sciences.*

Robert U. Bowman, B.A., Michigan State University; M.C.S., Texas A & M University; *Lecturer, Technology and Administration.*

Orton W. Boyd (1959), B.A., M.A., Ohio State. *Professor Emeritus, Accounting and Taxation, Business Administration.*

Robert P. Boynton (1969), B.A., Calvin College; M.A., Ph.D., University of Michigan. *Professor of Government and Public Administration.*

Lothar Brabanski (1957), Master, Academy of Fine Arts, Berlin. *Associate Professor of Art.*

Mary E. Bradshaw, B.A., Pennsylvania College; M.A., Ph.D., Wisconsin. *Professor of International Relations, International Service.*

Charles Brady (1967), B.A., University of Southern California. *Lecturer in Music.*

David J. Brandenburg (1948), B.S., Bowdoin; A.M., Ph.D., Columbia. *Professor of History.*

Leonard L. Brannan, M.B.A., Harvard. *Lecturer, Production, Business Administration.*

Ann Baker Braun (1962), B.A., M.A., Boston; Ph.D., New Hampshire. *Associate Professor of Chemistry.*

Richard M. Bray (1954), B.A., M.A., Colorado. *Professor of Government and Public Administration.*

Joseph P. Brennan, A.B., Notre Dame; M.B.A., American. *Lecturer, Marketing, Business Administration.*

Donald R. Brenner, B.S., LL.B., Ohio State. *Professorial Lecturer, Business Law, Business Administration.*

Steven Brewster (1964), Dpl., Curtis Institute. *Lecturer in Music.*

Edward J. Breyre (1961), B.S., M.S., Ph.D., Maryland. *Professor of Biology.*

B. Brooke Bright, A.B., American. *Lecturer, Personnel Management, Business Administration.*

Earl Brill, A.B., University of Pennsylvania; Th.B., Philadelphia Divinity School; Th.M., Princeton Theological Seminary. *Professorial Lecturer in American Studies, International Service. Episcopal Chaplain.*

George Brite, B.S., Maryland; M.B.A., American. *Lecturer, Finance, Business Administration.*

Raymond F. Brogan, B.S., St. Joseph's College; M.A., The George Washington University. *Professorial Lecturer, Technology and Administration.*

Fred R. Brown, A.B., M.A., Ph.D., Pennsylvania. *Adjunct Professor of Government and Public Administration.*

Herbert R. Brown, B.S., M.A., New York; Ed.D., American. *Professorial Lecturer, Personnel Management, Business Administration.*

Roger H. Brown (1965), A.B., A.M., Ph.D., Harvard. *Associate Professor of History. On leave 1969-70.*

Nicholas K. Bruck, B.B.A., M.B.A., Ph.D., University of Commerce, Vienna. *Professorial Lecturer, International Business, Business Administration.*

Coralie Bryant (1967), A.B., Barnard; Ph.D., London School of Economics. *Assistant Professor of Government and Public Administration.*

Earl Bryant (1965), B.A., University of Texas; M.A., American University. *Lecturer in Mathematics and Statistics.*

Harold A. Burch, B.S., Pennsylvania; M.B.A., American. *Professor, Real Estate, Business Administration.*

Benjamin Burdetsky, B.S., M.S., Temple; Ph.D., American. *Professorial Lecturer, Business Administration.*

Sumner O. Burhoe (1956), B.S., Massachusetts; M.S., Kansas State; Ph.D., Harvard. *Professor of Biology.*

Frederick S. Burin, II (1961), B.S., College of the City of New York; M.A., Syracuse; Ph.D., Columbia. *Professor of Government and Public Administration.*

Dinshaw Burjorjee (1966), A.B., Catholic; M.A., Georgetown. *Instructor of English.*

Edward I. Burkart (1960), B.S., M.S., Georgetown; Ph.D., University of Pennsylvania. *Associate Professor of Languages and Linguistics.*

Thelma K. Burkhalter (1966), A.B., M.A., George Washington University. *Lecturer in English.*

Geoffrey L. Burkhart, B.A., Oakland. *Assistant Professor in South Asian Studies, Anthropology and International Service.*

Kirk L. Burns (1968), B.S., U.S. Naval Academy; M.A., Washington; Ph.D., University of Paris. *Associate Professor, Business Administration.*

Robert O. Burns, B.S., Knox College; M.S., Ph.D., University of Illinois. *Professorial Lecturer, Technology and Administration.*

William J. Burns, B.S., Maryland; M.B.A., American. *Professorial Lecturer, Transportation, Business Administration.*

Samuel Engle Burr, Jr. (1947), Litt.B., Rutgers; M.A., Wisconsin; M.A., Columbia; Ed.C., Cincinnati. *Emeritus Professor of Education.*

George P. Bush (1948), M.B.A., Harvard; M.A., American. *Emeritus Professor SGPA.*

James R. Butts (1964), B.S., Virginia Polytechnic; M.S., New York. *Assistant Professor, Marketing, Business Administration.*

Richard Butwell, B.A., Tufts; M.A., Indiana; D. Phil., Oxford. *Professor of Southeast Asian Studies; Director, BCUI Training Program, International Service.*

Charles L. Byrd (1964), Virginia Polytechnic. *Adjunct Professor of Music.*

C

William Calfee (1945), Phillips Gallery; Ecole de Beaux-Arts, Paris; Catholic; Cranbrook School of Art. *Adjunct Professor of Art.*

Earl Callen (1968), B.A., M.A., University of Pennsylvania; Ph.D., M.I.T. *Professor of Physics.*

W. Donald Calomiris, A.B.A., American. *Professorial Lecturer, Business Administration.*

Paul M. Camp, B.S., M.S., Brown. *Adjunct Professor of Government and Public Administration.*

Joseph Campagna, B.A., College of William and Mary. *Professorial Lecturer, Technology and Administration.*

Howard H. Campaigne (1952), B.S., M.S., Ph.D., Northwestern. *Adjunct Professor of Mathematics and Statistics.*

William J. Campbell (1962), B.S., North Texas State College; B.S., M.S., Texas; Ph.D., Ohio. *Adjunct Professor of Chemistry.*

Murial Cantor (1968), B.A., M.A., Ph.D., UCLA. *Assistant Professor of Sociology.*

Joan Carey (1937), B.A., Wellesley College. *Lecturer in English.*

Robert A. Carlston, B.S., U.S. Coast Guard Academy; M.S., Purdue University. *Professorial Lecturer, Technology and Administration.*

Randall S. Caswell (1957), S.B., Ph.D., Massachusetts Institute of Technology. *Adjunct Professor of Physics.*

George N. Catravas (1957), D.Ch., University of Athens; Ph.D., University of Leeds, England; Ph.D., University of Paris (Sorbonne). *Professorial Lecturer in Biology.*

Doris Celarier (1962), B.A., North Dakota. *Lecturer in English.*

George K. Chacko, B. Comm., Calcutta University; M.A., Madras X'an College; Ph.D., New School Graduate Faculty. *Professorial Lecturer, Technology and Administration.*

Jean Chalifoux (1963), Diploma, Curtis Institute. *Lecturer in Music.*

Marie A. Charbonneaux (1960), Baccalaureat, Licence en-Droit, University of Paris; Etudes Pratiques d'Anglais, Sorbonne. *Assistant Professor of Languages and Linguistics. On leave 1969-1970.*

Benson T. Chertok (1966), B.S., M.S., Massachusetts Institute of Technology; Ph.D., Boston. *Assistant Professor of Physics.*

Robert J. Chinnis (1964), B.S., East Carolina; M.Ed., North Carolina; Ed.D., Maryland. *Associate Professor of Education.*

Warren I. Cikins, A.B., Harvard; M.P.A., Harvard. *Professorial Lecturer, Government and Public Administration.*

Charles M. Clark (1941), A.B., M.A., Ph.D., Cornell. *Professor of English.*

John M. Clarke, B.S., M.A., Ph.D., American. *Adjunct Professor of Government and Public Administration.*

Robert E. Cleary (1965), B.A., M.A., Montclair State College; M.A., Ph.D., Rutgers. *Professor of Government and Public Administration.*

W. Wendall Cleland, B.A., Westminster; M.A., Princeton; Ph.D., Columbia. *Professor of Middle East Studies, Emeritus, International Service.*

Marvin M. Cohen (1967), B.A., Brooklyn College; M.S., Ph.D., American University. *Professorial Lecturer in Physics.*

Ralph I. Cole, B.S., Washington University; M.S., Rutgers University. *Adjunct Professor, Technology and Administration.*

Mark H. Connor (1958), A.B., The American University; M.S., Ph.D., University of Maryland. *Professorial Lecturer in Biology.*

Richard F. Cook, A.B., National University of Economics and Finance; B.C.S., Benjamin Franklin. *Director, Applied Administrative Management Program; Adjunct Professor of Government and Public Administration.*

Harold H. Cooper (1966), B.A., M.A., University of Virginia. *Lecturer in English.*

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Doctor of Philosophy

Government

Public Administration

Public Administration: Technology of Management

School of International Service

Bachelor of Arts

International Studies

Languages and Area Studies

Master of Arts

International Studies

Languages and Area Studies

Master of International Service

Doctor of Philosophy

International Studies

College of Continuing Education

Associate in General Studies

Associate in Law Enforcement

Bachelor of Science in General Studies

Social Science

Business Administration

Police Administration

Bachelor of Science in Law Enforcement

Master of Science in Teaching

Master of Science in Correctional Administration

School of Nursing

Bachelor of Arts

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